Operation Instructions

Digital Video Recorder

BLR-3004, BLR-3008 and BLR-3016

Safety Warnings and Cautions

The following are warnings and precautions to ensure user safety and prevention of property damage.

Please read the information below thoroughly.

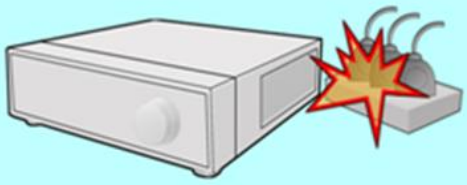
Warning and caution signs

Warning	If you are not aware of this warning, you may be seriously injured or be killed	Caution	If you are not aware of this caution, you may be injured or cause property loss.

Warning

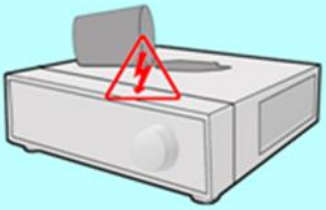
Turn off the system before installing the system. Do not plug in several electric devices to the same outlet.

• This may cause heating, fire or electric shock.



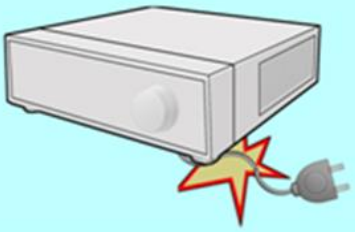
Do not place any liquid container on the system, such as water, coffee or any other beverage.

▪ If liquid is poured onto the system, it can cause a system malfunction or fire.



Prevent the power cable from being severely bent or pressed by a heavy object.

▪ This may cause fire.

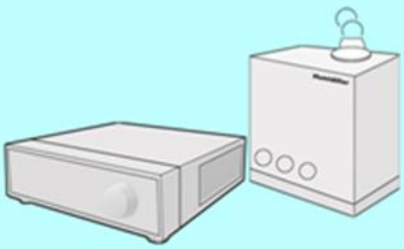


Clean the dust around the system on a regular basis. When cleaning the system, always use dry cloth. Do not use wet cloth or other organic solvents.

▪ This may damage the surface of the system and can cause system malfunction or electric shock.

Avoid any place with moisture, dust, or soot.

▪ This can cause fire or electric shock.



When pulling the power cable from the plug, do so gently. Do not touch the plug with wet hands and avoid using the plug if the holes on the outlet are too loose.

▪ This may cause fire or electric shock.

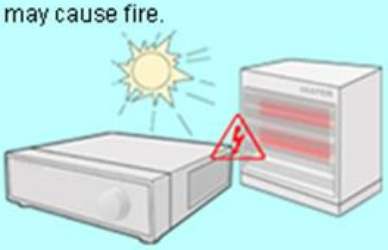
Warning

Do not attempt to disassemble, repair or modify the system on your own. It is extremely dangerous due to high voltage running through the system.

- This may cause fire, electric shock or serious injuries.

Install the system in a cool place without direct sunlight and always maintain room temperature. Avoid candlelight and heat-generating devices such as a heater. Keep the system away from high-traffic areas.

- This may cause fire.

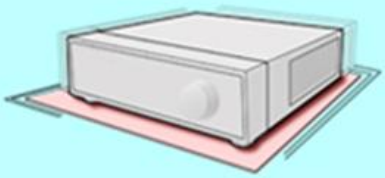


Check for any danger signs such as a moist floor, loosened or damaged power cable or unstable surface. If you encounter any problems, ask your dealer for assistance.

- This may cause fire or electric shock.

Install the system on a flat surface with sufficient air ventilation. Do not place the system on elevated surface.

- This may cause system malfunction or serious injuries.

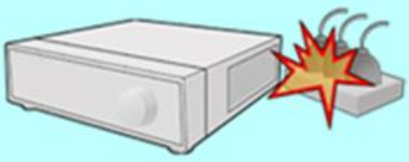


Keep at least 15cm between the back of the system and the wall for the cables connected into the system. Otherwise, the cables may be bent, damaged or cut.

- This may cause fire, electric shock, or injuries.

The power outlet must be placed on a ground, and the voltage range must be within 10% of the voltage rate. Do not use the same outlet with a hair dryer, iron, refrigerator or any heating appliances.

- This may cause fire, heating and electric shock.



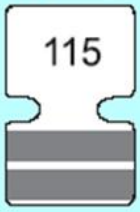
When the system's battery is depleted, you must replace it with the same or equivalent type of battery specified by the manufacturer. Depleted batteries should be discarded according to manufacturer's instructions.

- This may cause an explosion.

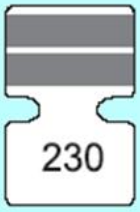
If the system's HDD has exceeded its life span, you may not be able to recover any data stored inside the HDD. If the video on the system screen appears 'damaged' while playing a recording stored inside the system's HDD, it must be replaced with a new one. Ask for an engineer's assistance for HDD replacement from your dealer.

Warning

Power setup



Connect with AC115V if the AC selector appears as shown here.

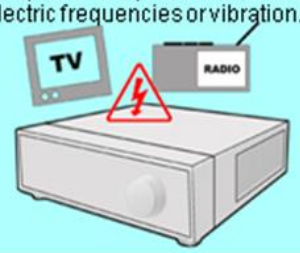


Connect with AC230V if the AC selector appears as shown here.

Caution

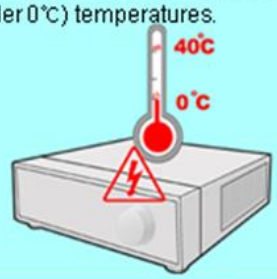
Do not install the system in an area featuring high magnetic, electric wave or wireless devices such as radio or TV.

- Install the system in a place without magnetic objects, electric frequencies or vibration.



Install the system in a place with appropriate moisture and temperature levels.

- Avoid installing the system at high (over 40℃) or low (under 0℃) temperatures.



Prevent any substances from entering into the system.

- This may cause system malfunction.

Do not place any heavy objects on the system.

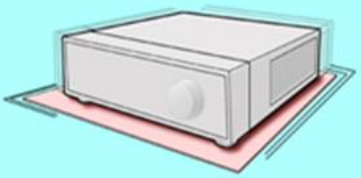
- This may cause system malfunction.

Install the system in a place with sufficient air ventilation.

- Keep at least 15cm distance between the back of the system and the wall, and at least 5cm distance between the side of the system and any walls.

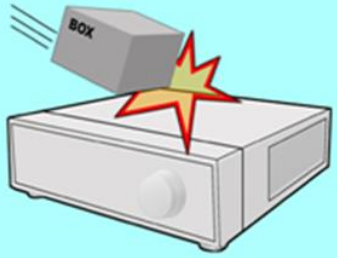
Install the system on a stable and level surface.

- The system may not operate properly.

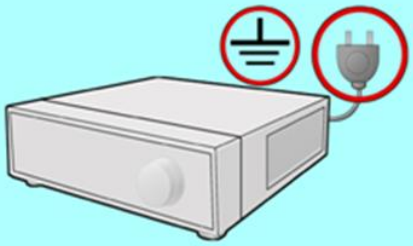


Caution

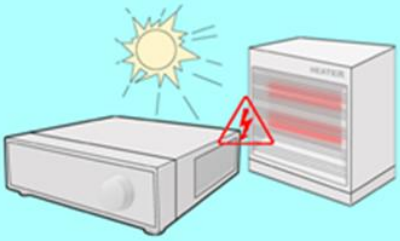
The system can be damaged as a result of strong impact or vibration. Avoid throwing objects within the vicinity of the system.



The outlet must be placed on the ground.

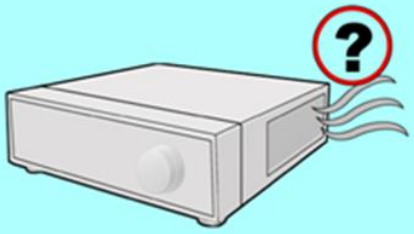


Avoid direct sunlight or any heating appliances.



If there is strange sound or smell, unplug the power cable immediately and contact the service center.

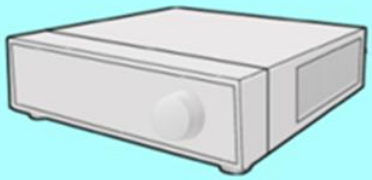
- This may cause fire or electric shock.



Ventilate the air inside the system operation room and tighten the system cover firmly.

- System malfunction may be caused by inappropriate environment.

Do not overturn the product when in use.



It is recommended to use AVR (automatic voltage regulator) for stable power supply.

It is recommended to coil the core-ferrite around the connector of the system to avoid electromagnetic interference.

In order to maintain stable system performance, have your system checked regularly by the service center.

Important Safety Instructions

1) Read all instructions contained in this manual.
2) Keep a copy of these instructions for future reference.
3) Read all warnings.
4) Follow all instructions.
5) Do not use this apparatus near water.
6) Clean only with a dry cloth.
7) Do not block any of the ventilation openings. Install in accordance with the manufacturer's instructions.
8) Do not install near any heat sources such as radiators, space heaters, stoves, or other devices that produce heat.
9) Do not defeat the safety purpose of the polarized or grounding type plug.
   vt- a grounding type plug has two blades and a third grounding prong.
   - the wide blade and third prong are safety features provided for your safety.

   [NOTE: If the provided plug does not fit into the outlet, consult an electrician for replacement of the obsolete outlet.]
10) Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11) Only use attachments or accessories that are specified by the manufacturer.
12) Use only with a cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13) Unplug this apparatus (if outlet is unprotected) during a lightning storm, or when unused for long periods of time.
14) Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
15) This equipment is intended for indoor use and all input/output wiring is limited to the inside of a building.
16) The power socket or outlet shall be installed near the equipment and should be easily accessible.
17) CAUTION: RISK OF EXPLOSION IF BATTERY IS REPLACED BY AN INCORRECT TYPE. ONLY DISPOSE OF USED BATTERIES ACCORDING TO THE INSTRUCTIONS.

NOTE: Maximum Operating Temperature: 40℃
USB Power Output: 5V DC (Maximum 500mA)

Specifications & Organization

1. Device Specifications

Video Standard	NTSC/PAL
Monitor Display	Real Time: 30ips (NTSC) or 25ips (PAL), per camera
Covert Camera Operation	Programmable
Event/Log Search	Up to 1,000,000 event log entries for user login/out, configuration changes, remote access, connects/disconnects.
Record Scheduling	Daily or Weekly; adjustable by specific hour of the day, per channel
Remote Access	Live View, Search, Playback, Configuration; via web browser or client software
Playback	Up to 16-channel simultaneous playback
Pre/Post Alarm Buffers	Up to 5 seconds (Pre), 3 minutes (Post), programmable per camera
DVI (VGA)	1280x1024 (60Hz) (monitors with Multi Sync function only)
Activity Detection	22x15(4ch) /16x16(8/16ch) grid ; Sensitivity Levels: 10 (1 lowest, 10 highest)
Multitasking	Pentaplex
Video Inputs	4, 8, 16 x 1Vp-p, CVBS, 75 ohms, BNC.
Monitor Outputs	1 x CVBS, DVI
Spot Output	1 x 1Vp-p, CVBS, 75 ohms, BNC
Resolution	352x240, 704x240, 704x480 (NTSC), 352x288, 704x288, 704x576 (PAL)
Compression Standard	H.264
Recording Speed	16Ch: 480/400fps@CIF, 8Ch: 240/200fps@CIF, 4Ch:120/100fps@2CIF
Image Size	3-5 Kbyte (352x240, 352x288), 5-10 Kbyte (704x240, 704x288) 6-16 Kbyte (704x480, 704x576)
Hard Disk Drive Capacity	2 x HDD; no limit on HDD capacity
Secondary Storage	USB default (USB memory stick, USB HDD, ODD)
Alarm Inputs	4, programmable as NC/NO
Alarm Outputs	1-channel: relay output.
Archive/Snapshot File Formats	AVI, JPG, BMP
Network Speed Control	8 levels (adjustable from 56Kbps ~ 8Mbps)

Specifications & Organization

1. Device Specifications (cont'd)

Pre-Alarm Recording	Up to 5 seconds, programmable per camera
OSD Languages	English, Spanish, Portuguese, French, Russian, Polish, German, Italian
Ethernet/LAN Network Interface	10/100-Base-TX, RJ-45
Remote Function	Live View, Search, Playback, Configuration, Archiving, Web R/A and Smart Phone
Digital Watermark	Watermarked Video (for verification of data integrity & continuity)
PTZ Control	RS-485 Serial interface (full duplex) (two wires, +/-)
Supply Voltage	12VDC
Operating Temperature Range	5℃ to 50℃
Housing Materials	Case Cover: Steel metal; Front Panel: Molded Plastic
Dimensions (HxWxD)	36cm x 39cm x 7cm
Weight	3.8kgs;

CE The CE Marking is a Directive Conformity mark of the European Union (EU).

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

This device complies with Part 15 of the FCC Rules. Operation is subject to following two conditions:
(1) This device may not cause harmful interference.
(2) This device must accept any interference received, including interference that may cause undesired operation.

Specifications & Organization

2. Product Contents List

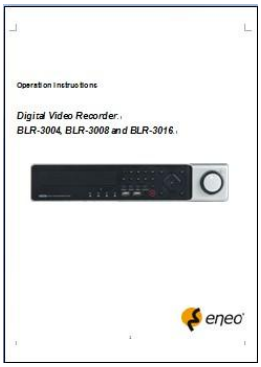
Please check to make sure that all of the product contents are present after opening the product packaging.

① Basic Contents

Unit

12V DC Adapter

AC Power Cable



Instruction Manual

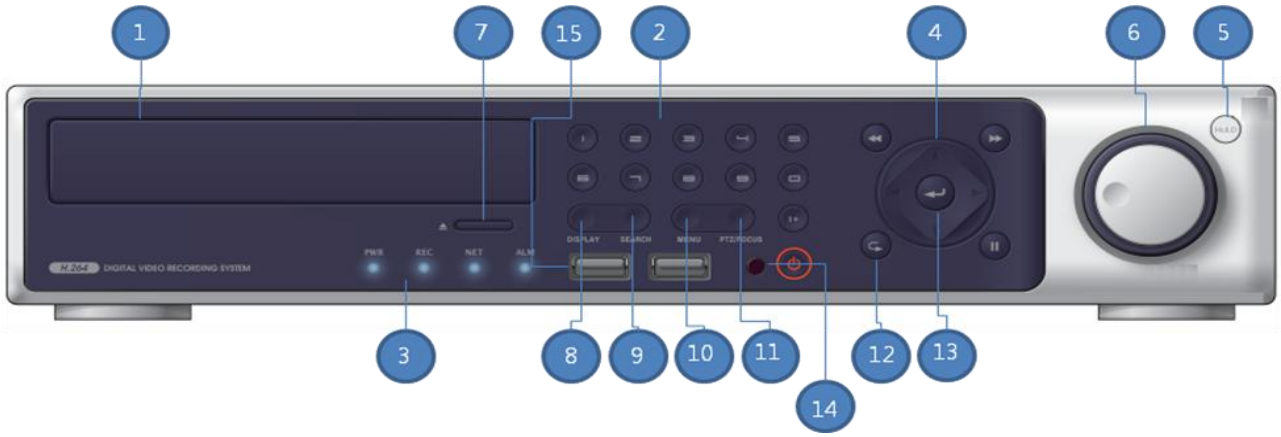
Remote Controller

Installation CD

AAA Battery x 2

Product Description

1. Front Panel



① CD/DVD-RW : CD/DVD-RW Device for Archiving.

② Channel Selection Button : Select Channel (1 ~ 16) or Input Password Digits.

③ LED Indicator: Indicate Present System Status Information.

(PWR: System Power On/Off, REC: Record On/Off, ALARM: Alarm Sensor Status,

NET: Network Client Connection Status,)

④ Search Controller : Searching Recorded Data or Control Menu & PTZ / FOCUS.

⑤ HOLD : Hold current position of Jog / Shuttle wheel.

⑥ JOG : Navigate through video frame-by-frame, while in Pause.

⑦ Eject : Eject CD / DVD.

⑧ DISPLAY : Switch Screen Division Mode (and Screen Rotation Mode).

⑨ SEARCH : Go to Search Menu.

⑩ MENU : Go to System Menu.

⑪ PTZ / FOCUS : Go to Camera PTZ Control.

⑫ RETURN : Cancel / Deselect / Return to Previous Screen.

⑬ ENTER : Confirm / Select / Go to Next Screen.

⑭ Remote Controller IR Sensor

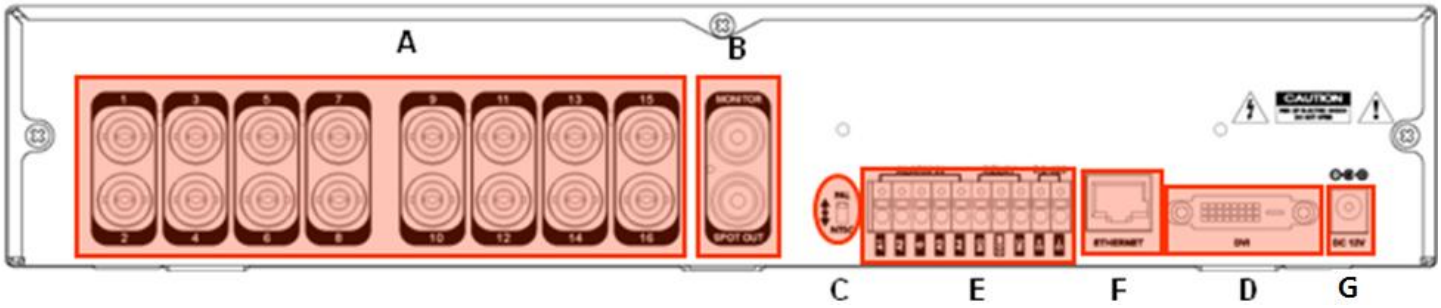
⑮ USB Port: USB port for USB Mouse, USB Memory Stick, or USB HDD archiving devices.

Tip

- Power Button uses “Soft-Off” with Password to prevent accidental shutdown.
- Channel Selection Buttons can be used in most Screen Division modes.
- If the IR Sensor is blocked, the Remote Controller will NOT work properly.
- When any Front Panel Button is pressed, it is accompanied by a system beep.
- Depending on the model of CD/DVD-RW installed, the actual appearance of the DVR system may look different from what is pictured above.

Product Description

2. Rear Panel



A. Video Inputs : Connect up to 16 BNC camera inputs.

B. Main Monitor Out : BNC Main Monitor Output to A/V Monitor.
Spot Monitor Out : BNC Spot Monitor Output to A/V Monitor.

C. NTSC / PAL : Select NTSC or PAL Video Format.

D. DVI OUT : DVI Video Main Monitor Output to Computer Monitor.

E. Alarm / Relay / RS-485 : Connection interface for Alarm Sensor Inputs, Relay Outputs, & RS-485 PTZ.

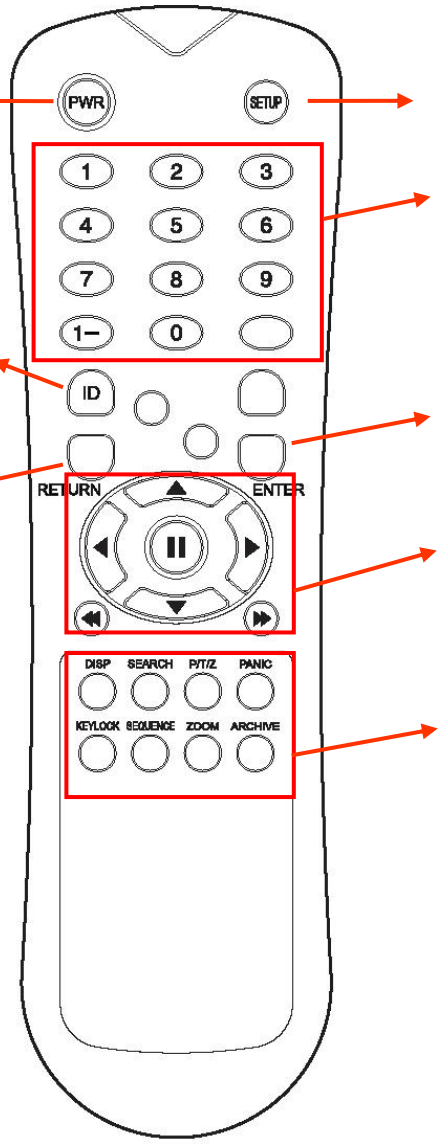
F. Ethernet (TCP/IP) : RJ-45 10/100 Base Ethernet / LAN connector.

G. DC Power Input : Connect to provided DC 12V Power Adapter.

Tip • During installation, please install unit while System Power is disconnected.

SYSTEM CONFIGURATION – Remote Controller

3. Handheld IR Remote Controller



POWER
ON/OFF

SETUP : Go to Main Setup Menu

Channel Selection Buttons
(also used for Password Digit Entry)

ID Button
Select DVR Unit ID

ENTER : Confirm / Select / Next Screen

RETURN
Cancel / Deselect
Previous Screen

Navigation Buttons
Used for Playback Control,
Menu Navigation, and PTZ Control

DISP : Change Screen Division mode.
SEARCH : Go to Search menu.
PTZ : Go to PTZ menu.
PANIC : Toggle Panic Recording mode.
KEYLOCK : Toggle Key Lock (Panel & Remote)
SEQUENCE : Toggle Sequence mode.
ZOOM : Go to Digital Zoom mode.
ARCHIVE : Go to Archiving menu.

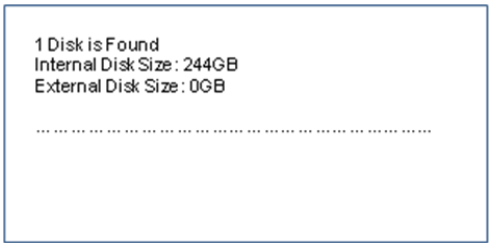
※ If there are multiple DVRs stacked or mounted in a rack, each DVR must be assigned a unique ID number, so that each DVR can be controlled with a single remote controller, referencing each DVR by its own ID.

How to choose which ID to use on the remote controller:

- Press the **ID** button. The system will display '**INPUT ID'**.
- Enter the digits of the unit ID, and then press the **ENTER** button. (The default unit ID is '**01**').
- To return back to normal control of the DVR, now press the **RETURN** button.
- Factory Default Setting: Input unit ID '**255**' and then press **ENTER** and **RETURN**.

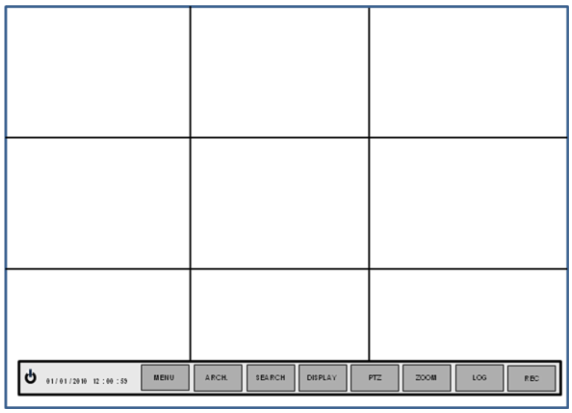
CONNECT & POWER ON

- Connect up to 16 **CAMERA INPUTS** as necessary.
- Connect one or more monitors to the DVR using the **COMPOSITE** or **DVI (**VGA**)**.
- Connect power to the DVR, using the provided DC 12V Power Adapter.
  The DVR will check for proper power connection and emits two beeps if system power test is OK.
- Press the **POWER BUTTON** on the front panel of the DVR to begin operation.



- The DVR startup screen detects and checks the status of all internal hard drives, and the CD/DVD-RW drive.

- After startup diagnostics are complete, the operator must login to the system. The default user name is '**ADMIN**'.
- Using the **CHANNEL SELECTION** buttons, key in the digits of the default password ('**1234**') and then press the **ENTER** button.



- After DVR startup, the system will show the default display of all 16 channels in a standard 4x4 Screen Division mode.
- The status bar at the bottom of the screen shows the current Date/Time and the percentage of Hard Drive capacity used.
- The title for each channel is shown.
- A red recording icon and the letter 'C' in the top right of each channel shows that the channel is recording in 'Timer' (Scheduled / Continuous) recording mode.

LIVE DISPLAY

MENU CONTROL

All menus can be controlled from this ‘Status Bar’ with either the USB mouse or Front Panel buttons.

SCREEN DIVISION

Select the ‘**DISPLAY**’ button and the screen division menu will appear.

Select the screen type (1, 4, 6, 8, 9, 16-channel or sequence).

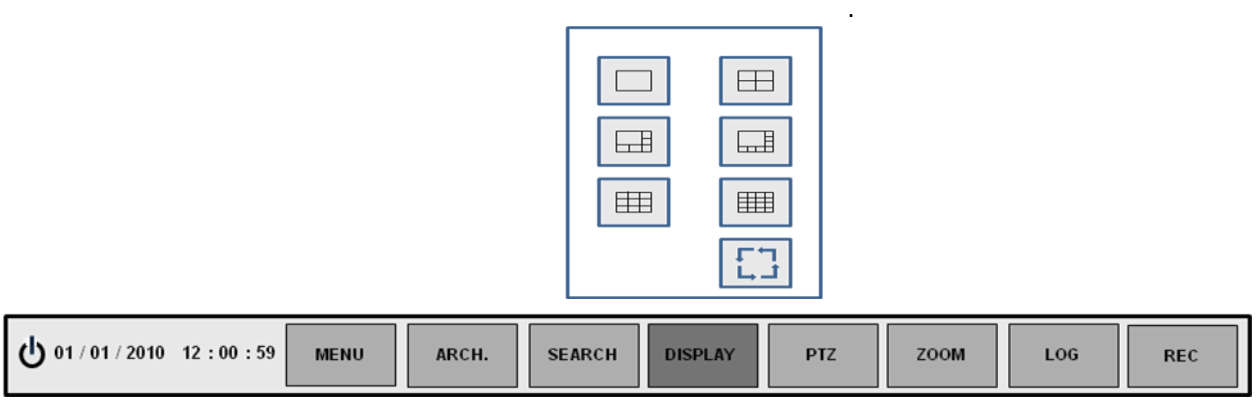
SEQUENCE MODE

(User can select a sequence as one of the options within the screen division menu.)

Press the ‘**SEQ**’ button. Each channel is shown full screen for an adjustable duration, before switching to the next channel.

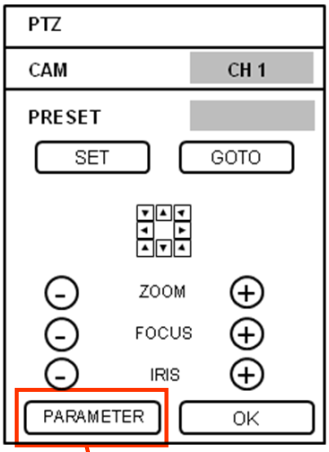
To stop the sequence on a particular channel, press the ‘**SEQ**’ button again.

More complex sequences can be programmed through the ‘**DISPLAY**’ section of the setup menu.

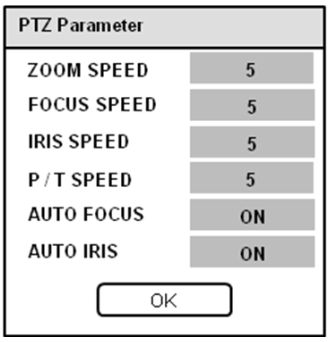


LIVE DISPLAY

PTZ



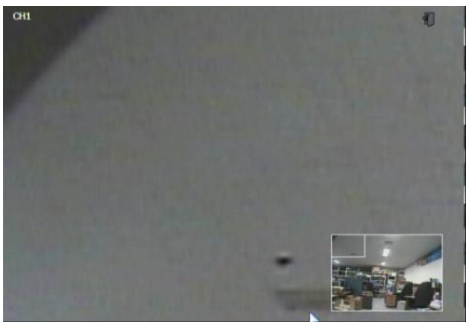
1) CAM: Select the Channel of the PTZ device which you are controlling.
2) Preset: Select the number of the preset you are working with (1 ~ 254).
3) Set: Sets the current PTZ position as the selected Preset number.
4) Goto: Tells the PTZ device to move to the position of the selected Preset.
5) Directional Arrows: moves the PTZ device in the direction specified.
6) Zoom / Focus / Iris: User can control each item with + or - button.



7) Parameter: Press this button and another window will appear.
User can select an item from the PTZ parameter menu, and edit the settings in order to fine-tune the speed of pan-tilt-zoom motions, or to enable advanced features, such as Auto Focus and Auto Iris (only on supported PTZ devices).

DIGITAL ZOOM

Right-Click within Live View mode, and choose '**ZOOM**'.
Or select the '**ZOOM**' function from the status bar.



While viewing a channel in full screen, the user can digitally zoom into a particular area of that channel by up to 8X.
The small PIP window at the bottom-right shows the full image and the main display area shows the zoomed portion.

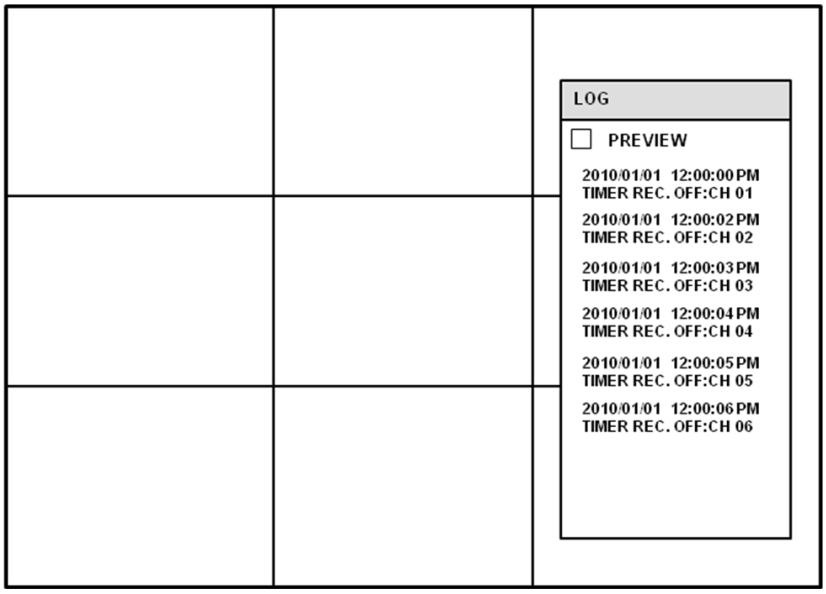
LIVE DISPLAY

LOG SEARCH

User can see a live event log window, which shows each new event as it occurs.

Click on an event within the live event log window to begin playback from the selected event.

(This will only happen when the ‘PREVIEW’ option is selected from the live event log window.)

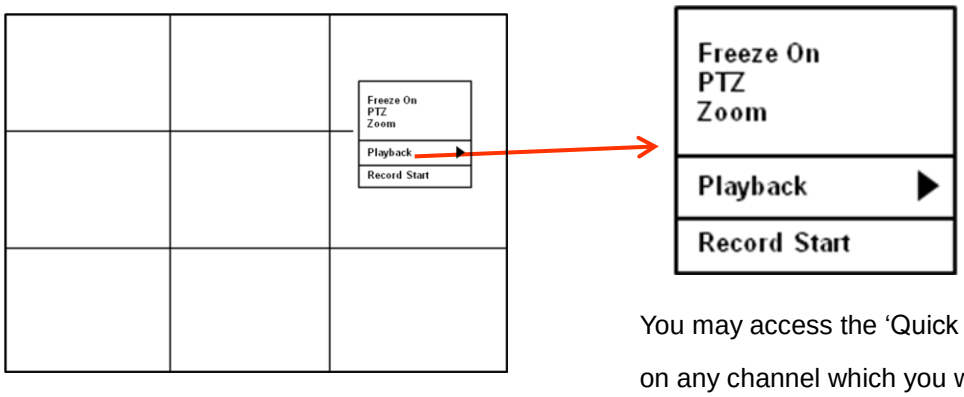


PANIC RECORDING

- This function button is used to toggle the Panic Recording mode On/Off.
- When Panic Recording mode is enabled, you will see a red recording icon with “P” for Panic.
- When Panic Recording mode is enabled, the system will record all channels, as per the Panic Recording settings.
- All resolution and image rate settings related to Panic Recording are configured within the Record menu.

LIVE DISPLAY

QUICK MENU



You may access the 'Quick Menu' by right-clicking on any channel which you would like to control.

1. Freeze On/Off: User can freeze the live display of any channel. While the other channels will continue to show live view video, the frozen channel display is stopped. Click once more to return to live view video.

2. PTZ

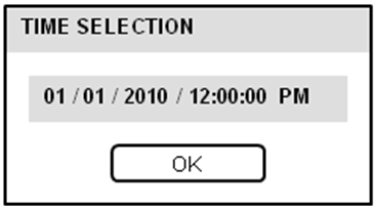
   Please refer to "PTZ" menu of Page 15.

3. Zoom

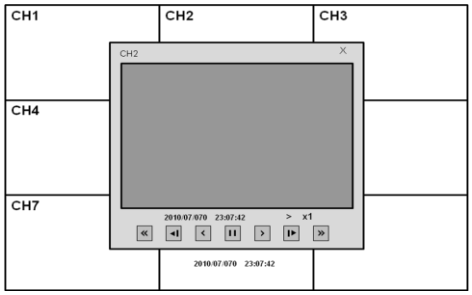
   Please refer to "ZOOM" menu of Page 15.

4. Instant Playback

User can instantly playback video from a selected time (10, 20, 30 seconds or 1 minute) ago.



In the case of selecting the "go to'" option, another menu will appear.
After entering the desired Date / Time, press "OK" to begin playback from there.



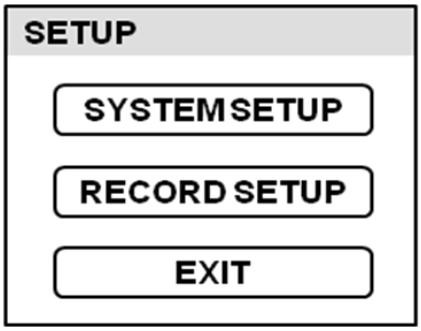
5. Record Start (Stop)

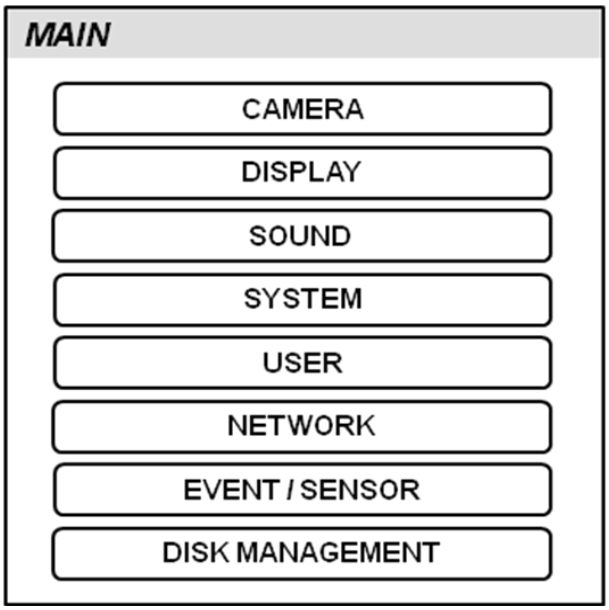
   Please refer to "Panic Record" menu of Page 16.

SYSTEM SETUP

LIVE DISPLAY

Click the '**MENU**' button and choose the '**SYSTEM SETUP**' menu.





- To navigate around any items in the setup menu, use the **CURSOR KEYS** and the '**ENTER**' and '**RETURN**' buttons.
- In general, the '**ENTER**' button is used to select a particular field to edit, and then is pressed again to confirm changes.
- The '**RETURN**' button is used to cancel or deselect, or to step back one screen while navigating the menu system.

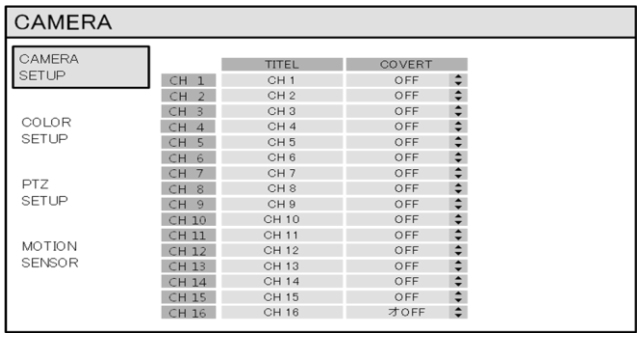
- To configure all system settings, highlight '**SYSTEM SETUP**' and press '**ENTER**'.

SYSTEM SETUP

CAMERA

From the '**System Setup**' menu, click on the '**CAMERA**' submenu.

CAMERA : CAMERA SETUP


CAMERA
CAMERA SETUP
COLOR SETUP
PTZ SETUP
MOTION SENSOR
TITEL
COVERT
CH 1 CH 1 OFF
CH 2 CH 2 OFF
CH 3 CH 3 OFF
CH 4 CH 4 OFF
CH 5 CH 5 OFF
CH 6 CH 6 OFF
CH 7 CH 7 OFF
CH 8 CH 8 OFF
CH 9 CH 9 OFF
CH 10 CH 10 OFF
CH 11 CH 11 OFF
CH 12 CH 12 OFF
CH 13 CH 13 OFF
CH 14 CH 14 OFF
CH 15 CH 15 OFF
CH 16 CH 16 OFF

Left-click on the **CAMERA SETUP** menu.

Double-click on the 'TITLE' field to change the camera name.

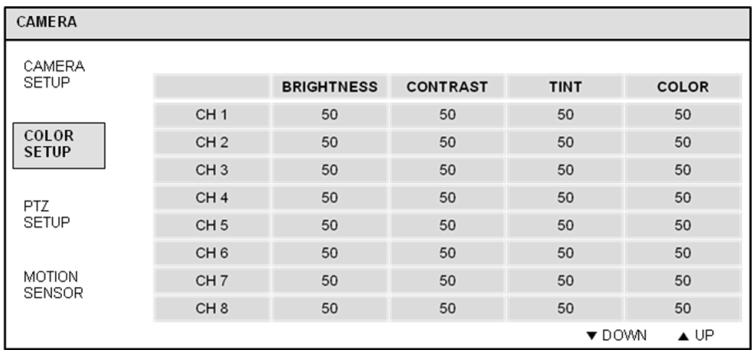
Click the 'COVERT' fields for the desired channel.

Then, use the button to modify each value.

TITLE: For each camera, a title of up to 11 characters can be set, using the virtual keyboard.

COVERT: When it is set to ON, the camera image is not displayed in live display but continues to be recorded.

CAMERA : COLOR SETUP


CAMERA
CAMERA SETUP
COLOR SETUP
PTZ SETUP
MOTION SENSOR
BRIGHTNESS CONTRAST TINT COLOR
CH 1 50 50 50 50
CH 2 50 50 50 50
CH 3 50 50 50 50
CH 4 50 50 50 50
CH 5 50 50 50 50
CH 6 50 50 50 50
CH 7 50 50 50 50
CH 8 50 50 50 50
▼ DOWN ▲ UP

Click on any field to adjust its value.

Modify each value using the button.

While modifying any value within the color setup, the selected channel will be displayed full screen.

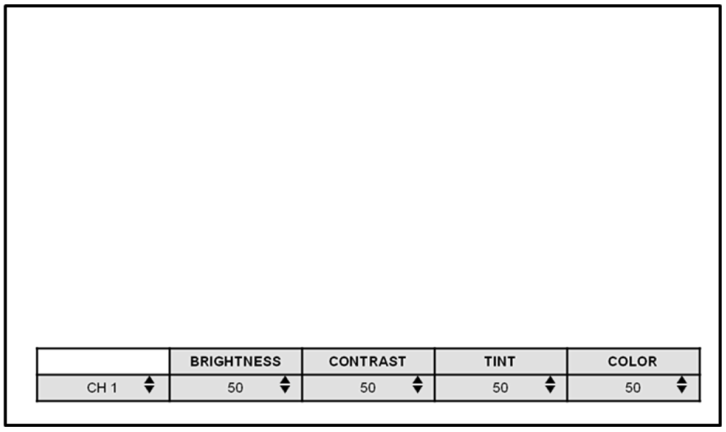
BRIGHTNESS, CONTRAST, TINT and COLOR can be modified as necessary.

To modify a different channel, highlight the CAMERA field, and choose the desired channel.

Press **RETURN** when all changes are completed.

NOTE: These settings will not change the properties of the recorded image, only what is being displayed on screen.

SYSTEM SETUP



Modify each value using the button.

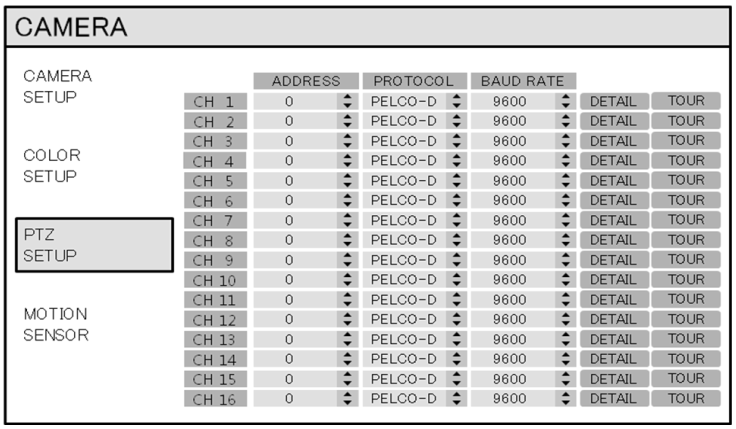
The selected channel is displayed in full screen mode.

BRIGHTNESS, CONTRAST, TINT and COLOR can be changed as necessary.

To modify a different channel, highlight the CAMERA field, and choose the desired channel.

Press **RETURN** when all changes are completed.

CAMERA : PTZ SETUP


CAMERA
CAMERA SETUP
COLOR SETUP
PTZ SETUP
MOTION SENSOR
ADDRESS
PROTOCOL
BAUD RATE
CH 1 0 PELCO-D 9600 DETAIL TOUR
CH 2 0 PELCO-D 9600 DETAIL TOUR
CH 3 0 PELCO-D 9600 DETAIL TOUR
CH 4 0 PELCO-D 9600 DETAIL TOUR
CH 5 0 PELCO-D 9600 DETAIL TOUR
CH 6 0 PELCO-D 9600 DETAIL TOUR
CH 7 0 PELCO-D 9600 DETAIL TOUR
CH 8 0 PELCO-D 9600 DETAIL TOUR
CH 9 0 PELCO-D 9600 DETAIL TOUR
CH 10 0 PELCO-D 9600 DETAIL TOUR
CH 11 0 PELCO-D 9600 DETAIL TOUR
CH 12 0 PELCO-D 9600 DETAIL TOUR
CH 13 0 PELCO-D 9600 DETAIL TOUR
CH 14 0 PELCO-D 9600 DETAIL TOUR
CH 15 0 PELCO-D 9600 DETAIL TOUR
CH 16 0 PELCO-D 9600 DETAIL TOUR

Click the **PTZ SETUP** menu.

Click on any field to modify its value.

Change the value by the button.

ADDRESS: The unique ID of the PTZ device.

PROTOCOL: The protocol of the PTZ device.

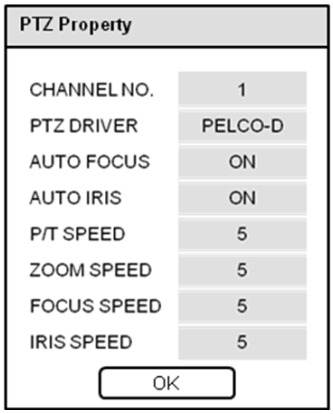
BAUD RATE: The baud rate of the PTZ device.

DETAIL : Detail setting for PTZ device. (*Refer to the next page.*)

TOUR : Tour setting for PTZ device. (*Refer to the next page.*)

SYSTEM SETUP

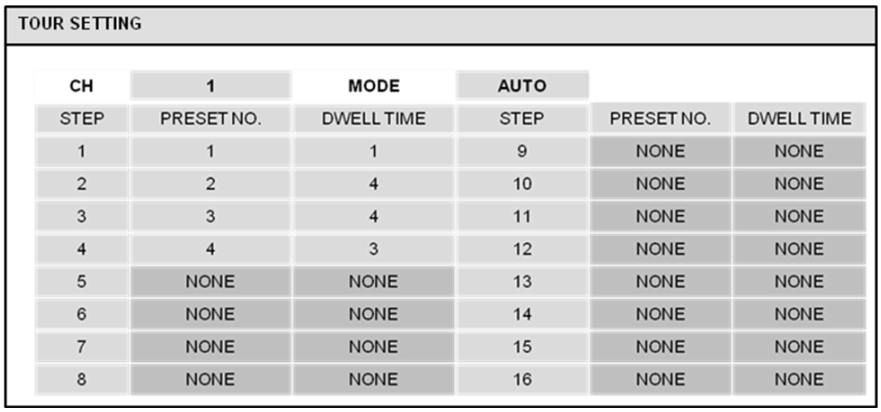
DETAIL



Advanced PTZ properties can be adjusted for each channel using the '**DETAIL**' button.

Some settings, such as Auto Focus, may not be compatible with all PTZ devices.
If this is the case, changing this value will have no effect on PTZ control.

TOUR

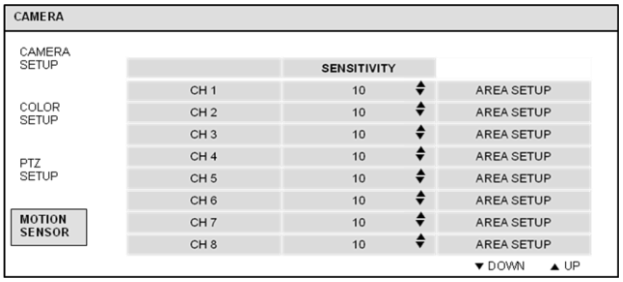

TOUR SETTING
CH 1 MODE AUTO
STEP PRESET NO. DWELL TIME STEP PRESET NO. DWELL TIME
1 1 1 9 NONE NONE
2 2 4 10 NONE NONE
3 3 4 11 NONE NONE
4 4 3 12 NONE NONE
5 NONE NONE 13 NONE NONE
6 NONE NONE 14 NONE NONE
7 NONE NONE 15 NONE NONE
8 NONE NONE 16 NONE NONE

Click the '**TOUR**' button and set the MODE to 'AUTO' in order to use the TOUR function.

First, you must choose the channel of the PTZ device which you are configuring the tour for.
Select a valid PRESET number for each step of the tour.
Select the DWELL TIME, which is the amount of time that the PTZ will wait before moving to the next preset.

SYSTEM SETUP

CAMERA : MOTION SENSOR



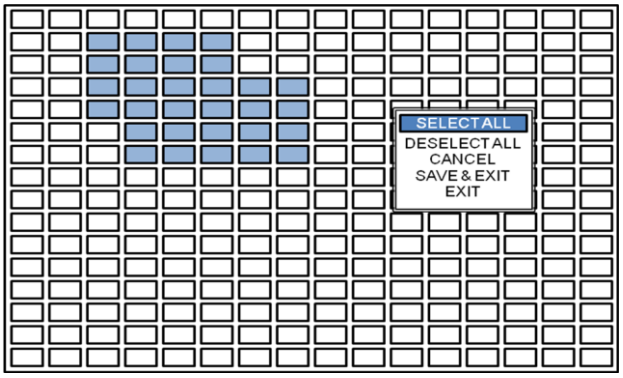
Click on the **MOTION SENSOR** menu.

Click on a SENSITIVITY value for the desired channel.

Then use the button to increase or decrease the sensitivity.

SENSITIVITY : Determines the degree of motion required before recording is activated.

(1: Least Sensitive to Motion - 10: Most Sensitive to Motion)



Click the AREA SETUP button to edit the motion detection area.

AREA SETUP : Choose this option to define which areas of the image are sensitive to motion.

Click on individual squares to select or deselect each square.

Click-and-drag to select or deselect entire areas of the grid.

To quickly select or deselect the entire grid at once, right-click and choose either '**SELECT ALL**' or '**DESELECT ALL**'.

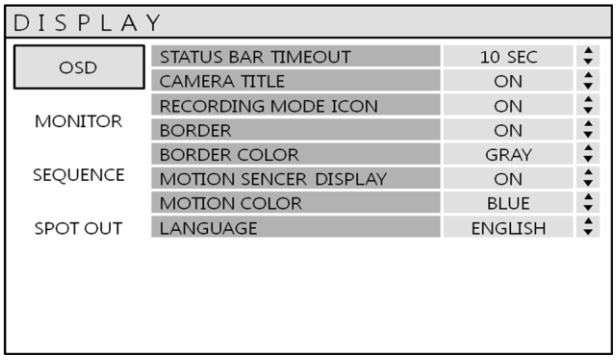
- Red outlined grid area: Selected area.
- White outlined grid area: Unselected area.
- Green outlined grid square: Current position of mouse cursor.

SYSTEM SETUP

DISPLAY

From the '**System Setup**' menu, click on the '**DISPLAY**' submenu.

DISPLAY - OSD



Click on the '**OSD**' submenu and then click on any field.

Then, click on the button to modify the value.

STATUS BAR : Toggles the status bar at the bottom of screen in Live View mode ON / OFF.

CAMERA TITLE : Determines whether the camera title is displayed for each channel.

RECORDING MODE ICON : Toggles the DVR recording status icons shown at the top right of each channel window.

BORDER : Determines whether there is a border grid shown around each channel in each Screen Division mode.

BORDER COLOR : If the border grid is set to ON, the user can choose the color of the grid.

MENU TRANSPARENCY : During setup, Live View video can be seen through a partially-transparent menu screen. Changing this value determines whether the live view is more (higher value) or less (lower value) visible.

MOTION SENSOR DISPLAY : This feature can be used to determine which areas within a channel are detecting motion in real-time. The motion sensor display can be used to troubleshoot false motion activations.

OFF – normal display mode.

ON – areas where motion is detected are highlighted with colored blocks.

MOTION COLOR: The color of the blocks displayed when MOTION SENSOR DISPLAY is set to ON.

LANGUAGE : Determines the DVR Operating System language.

To change any of these settings, highlight '**OSD**' and press '**ENTER**' to select.

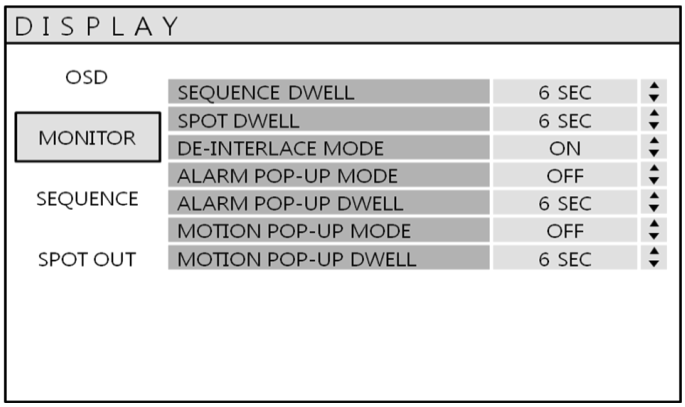
Use the **CURSOR KEYS** to navigate to the desired option.

Press '**ENTER**' to select the option, and use the **CURSOR KEYS** to change the setting.

Press '**ENTER**' to confirm the setting or '**RETURN**' to cancel.

SYSTEM SETUP

DISPLAY - MONITOR



Click the **MONITOR** menu, then click on any field.

Use the button to modify the value.

SEQUENCE DWELL : The amount of time that each screen is displayed in a sequence.

SPOT-OUT DWELL : The amount of time that each screen is displayed on each of the spot monitor outputs.

DE-INTERLACE MODE : When recording any channels in D1 resolution (704 x 480), this may be set to ON, to prevent interlaced motion distortion during playback.

ALARM POP-UP MODE : When enabled, an alarm input will cause the associated channel to display full screen.

ALARM POP-UP DWELL : Determines the amount of time a full screen popup is displayed after an alarm input. If the alarm condition continues, the pop-up screen will be displayed constantly.

MOTION POP-UP MODE : When enabled, motion detection will cause the associated channel to display full screen.

MOTION POP-UP DWELL: Determines how long the full screen popup is displayed after motion detection. If motion continues, the popup screen is displayed constantly.

To change any of these settings, highlight '**MONITOR**' and press '**ENTER**' to select.

Use the **CURSOR KEYS** to navigate to the option required.

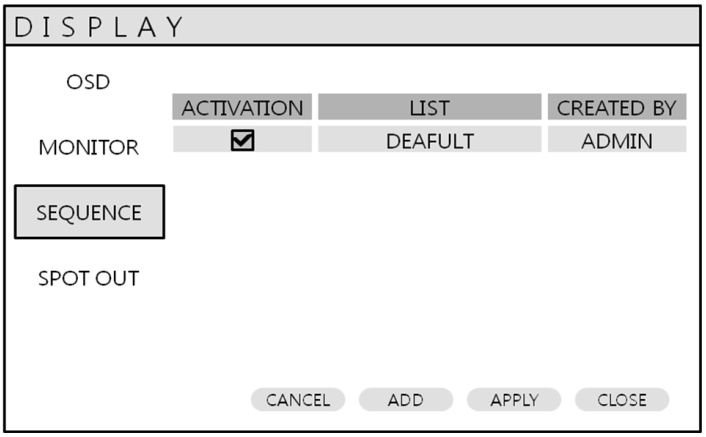
Press **ENTER** to select the option (the cursor changes to orange) and use the **CURSOR KEYS** to change the setting.

Press **ENTER** to save the setting, or press **RETURN** to cancel.

NOTE: When display modes are changed, the DVR must be rebooted in order for changes to take effect.

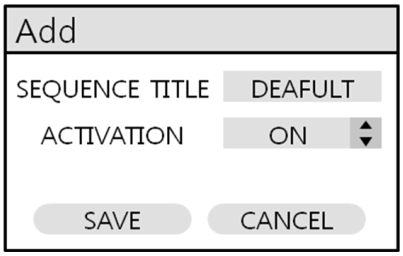
SYSTEM SETUP

DISPLAY - SEQUENCE



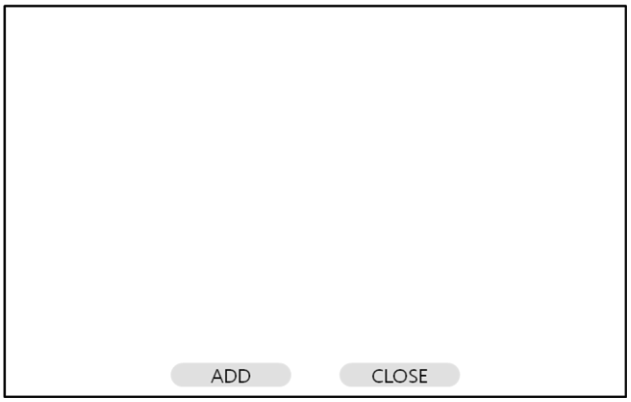
Click the '**SEQUENCE**' menu.

- When the '**SEQ**' button is pressed, the default sequence will cycle through all 16 channels, one by one, in full screen.
- Sequence setup allows the user to define a custom sequence pattern, using either full screen or mixed multi-screen views, which can be comprised of any number of channels in any order.
- To add a new sequence, highlight '**ADD**' and press '**ENTER**'.

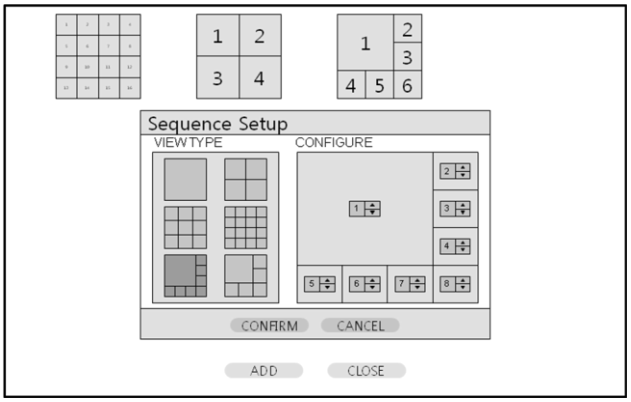


Click the '**ADD**' button to add a new sequence.

- Sequence Title is highlighted. Press '**ENTER**' to bring up the virtual keyboard, and key in a name for the new sequence.
Click on the '**ACTIVATION**' field, and click the button to turn the sequence activation ON.
Select '**SAVE**'. Then, the menu pictured will appear.



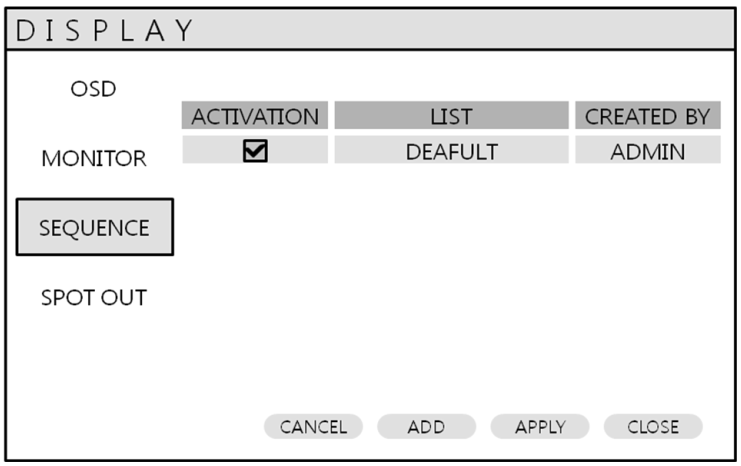
SYSTEM SETUP



Click '**ADD**'. The "Sequence Setup" submenu appears.

- Determine the Screen Division mode under the "VIEW TYPE" section.
- Assign the desired channel under the "CONFIGURE" section.
- When all sequence settings have been entered correctly, click '**CONFIRM**'.

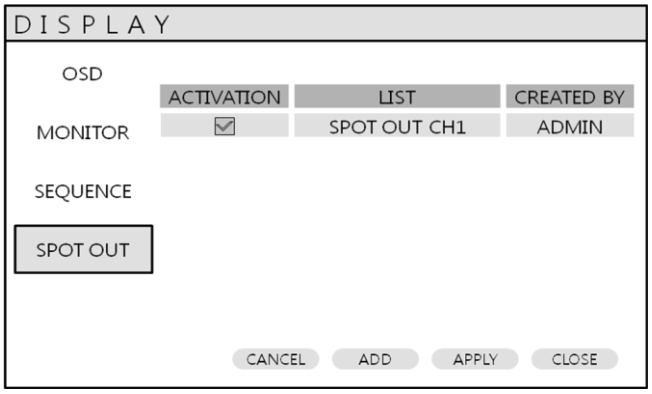
- To add an additional mode, click '**ADD**' continuously. After finishing the setup, click '**CLOSE**'.
- To modify the current pattern, double click it. The 'Sequence Setup" window will appear again.



- The new sequence has now been saved, and can be started by pressing the '**SEQ**' button while in Live View mode.

SYSTEM SETUP

DISPLAY – SPOT OUT



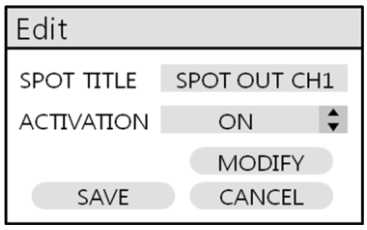
Click on the '**SPOT-OUT**' menu.

Each DVR has up to **1 SPOT MONITOR OUTPUTS**.

The spot monitor displays a full screen sequence of particular channels, depending on the settings within this menu.

The operator can decide which channels are to be displayed in the sequence.

By default, The Spot Monitor output is set to run a sequence of all 16 channels.



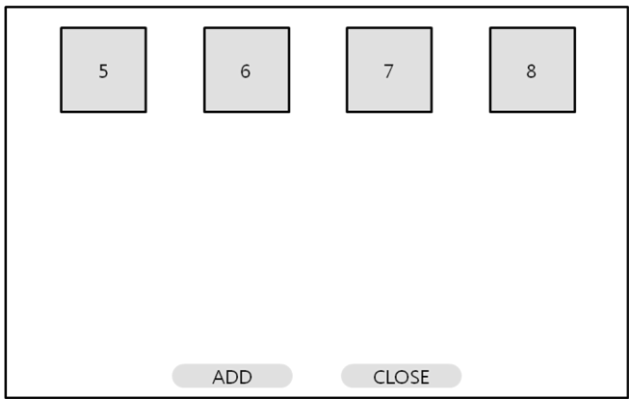
SPOT TITLE: Input the title of each spot monitor.

ACTIVATION: Toggle each spot monitor ON/OFF.

- Click '**MODIFY**'. (Below is default setup)
- To modify the current display, double-click the display. Then 'Spot Sequence Setup" window will appear.

Setup method is similar to the Sequence setup performed earlier (can only use single or quad mode for spot output).

- To add an additional display, click '**ADD**'.

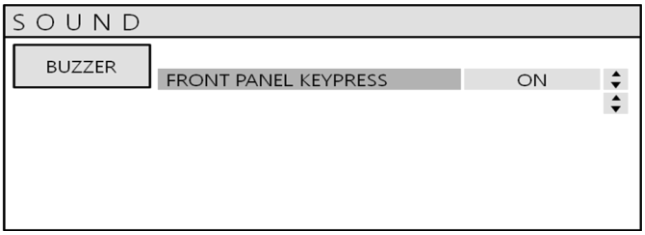


SYSTEM SETUP

SOUND

From the '**System Setup**' menu, click on the '**SOUND**' menu.

SOUND - BUZZER



Click on the **BUZZER** menu, and click on any field.

Use the button to modify each value.

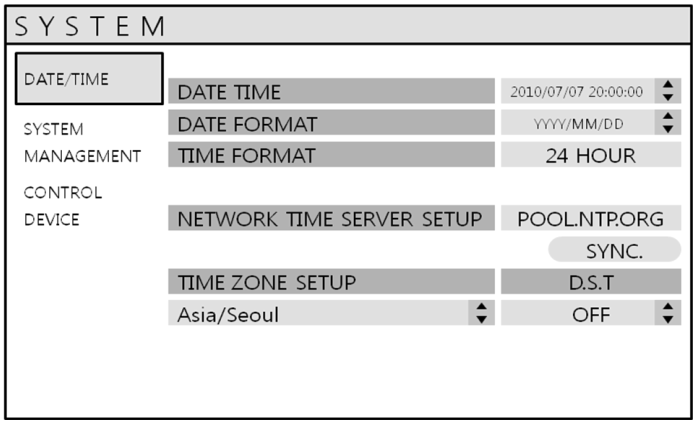
FRONT PANEL KEYPRESS: When enabled, each front panel button keypress is confirmed by a system beep.

SYSTEM SETUP

SYSTEM

From the '**System Setup**' menu, click the **SYSTEM** menu.

SYSTEM - DATE / TIME



Click the **DATE / TIME** menu, and click on any field.

Use the button to modify any value.

DATE TIME : Allows the operator to set or modify the current system date & time.

DATE FORMAT : Determines the format in which the date is displayed. (MM / DD / YYYY)

TIME FORMAT : Determines how the time is displayed. (AM/PM or 24-hour)

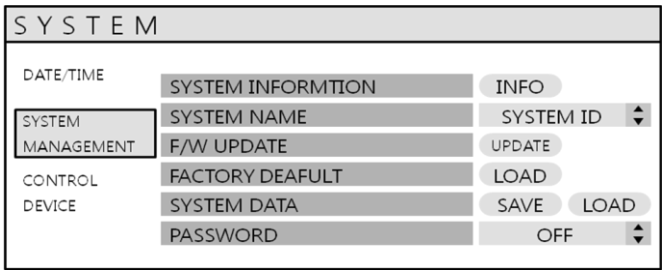
NETWORK TIME SERVER SETUP : If the DVR is connected to the Internet, the time and date can be accurately set by selecting SYNC and pressing **ENTER**.

TIME ZONE SETUP : should be set according to the region that the DVR is used in.

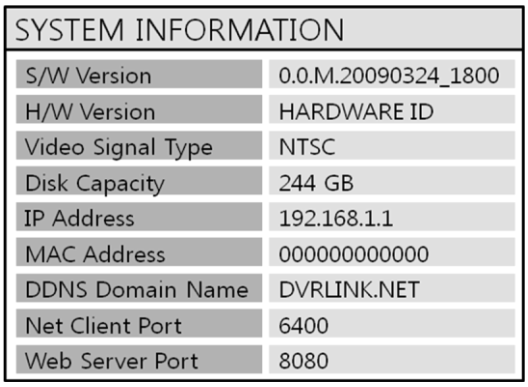
D.S.T. : When enabled, the DVR will automatically adjust for daylight savings time changes in the spring and autumn.

SYSTEM SETUP

SYSTEM-SYSTEM MANAGEMENT



Click on the '**SYSTEM MANAGEMENT**' menu.



F/W version: Shows the current firmware version of the DVR.

H/W version: Shows the hardware version of the DVR.

VIDEO SIGNAL TYPE: The DVR automatically switches between PAL and NTSC depending on the video format of the Channel 1 input signal at the time of power on.

DISK CAPACITY: The first value shows the amount of hard drive capacity used by recorded footage. The second value shows the total hard drive capacity installed.

IP ADDRESS: Shows either the manual IP address entered in the '**NETWORK**' menu, or the automatic IP address assigned by a DHCP server, if enabled.

MAC ADDRESS: Shows the MAC (Media Access Control) address of the DVR. It is a unique identifier – no other network device has the same MAC address.

DDNS DOMAIN NAME: If DDNS is enabled, the host DDNS server is specified here.

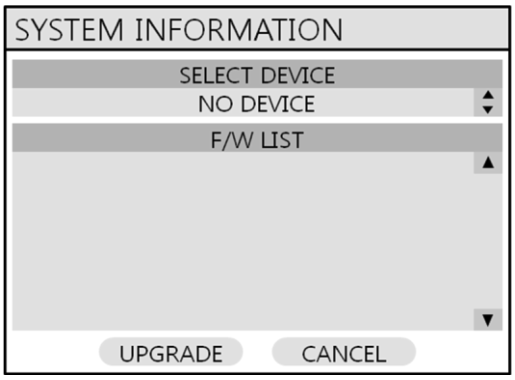
NET CLIENT PORT : The port number that the DVR uses to support remote connection from the client software.

WEB SERVER PORT : The port number that the DVR uses to support remote connection from Internet Explorer or other web browsers.

SYSTEM NAME : This field is used so that notification e-mails can be identified by system name.

SYSTEM SETUP

F/W UPDATE : Firmware updates may be released periodically to enhance system performance and add extra features. The user can upgrade the DVR firmware locally, using a USB memory stick.



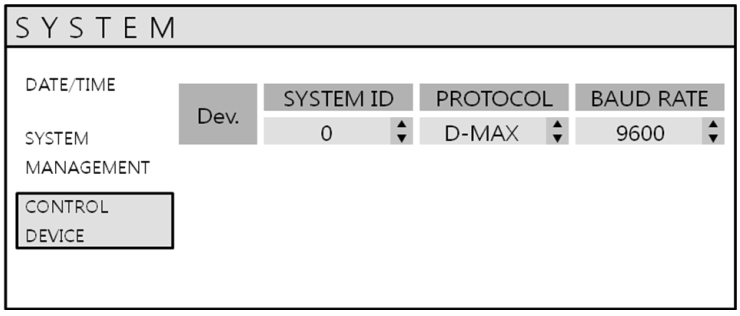
Select the Device where the Firmware Update files are located.
After selecting the F/W version from F/W list, press '**UPGRADE**'.
This will start the Firmware Update process.

FACTORY DEFAULT : If settings have been changed which cause erratic behavior, the factory default configuration can be reloaded.

SYSTEM DATA : The system configuration can be saved to a USB memory stick. At any time, it can be reloaded in case of accidental factory reset, or can be transferred to another DVR if multiple units need to be installed with the same settings. All information is saved apart from network settings and system name.

PASSWORD: Determines whether the system must be used every time when entering the menu system.

SYSTEM - CONTROL DEVICE



Click on the '**CONTROL DEVICE**' menu.

This will allow up to 254 DVRs to be controlled from the same keyboard controller.

SYSTEM ID: If more than one DVR is connected on the same RS-485 bus, each one must have a unique ID.

***Note*:** If more than one DVR is being used, each DVR must have a unique ID to use the Handheld IR Remote Controller.

PROTOCOL: Must be set to match the Protocol of the Control Device.

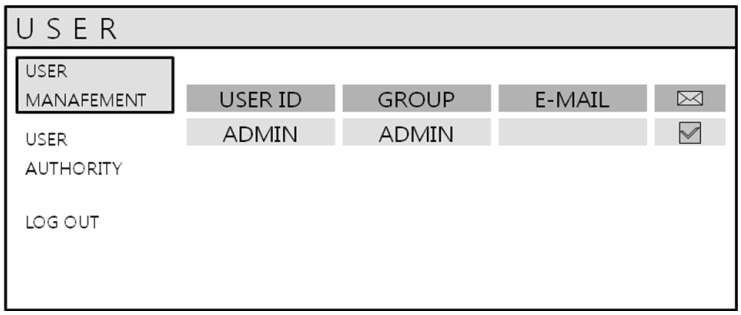
BAUD RATE: Must be set to match the Baud Rate of the Control Device.

SYSTEM SETUP

USER

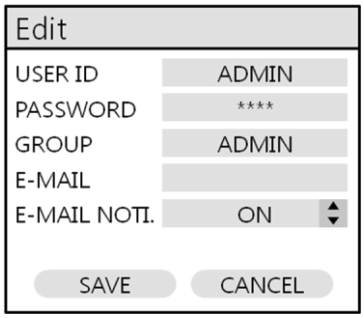
From the '**System Setup**' menu, click on the '**USER**' menu.

USER - USER MANAGEMENT



By default, the DVR is configured with a user ID of '**ADMIN**', belonging to the ADMIN group, with a password of '**1234**'.

Within this menu, you have the ability to add new users, or modify the details for existing users.
To modify user details, click or highlight the user with the green cursor square, and press '**ENTER**'.
The maximum number of users that can be created is 8.



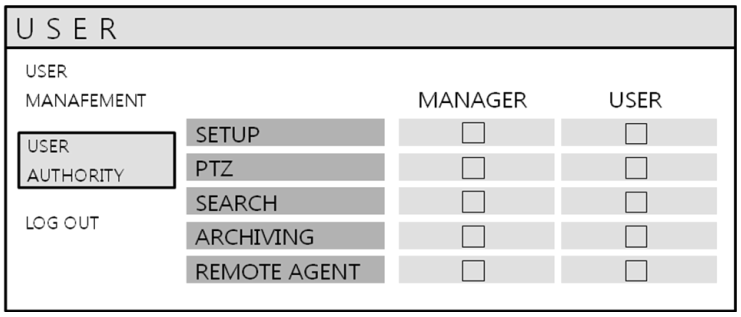
To edit a user account, double-click on the user name.
After changing, click '**OK**' to confirm changes.

USER ID : Edit the User ID using the virtual keyboard. (maximum of 10 characters)
PASSWORD : Change the password using the virtual keyboard. (maximum of 4 characters)
GROUP : Users can be assigned to one of three groups - ADMIN, MANAGER or USER (*see User Authority setup*).
E-MAIL : Enter the user's e-mail address if e-mail notification is required. (maximum of 64 characters)
E-MAIL NOTIFICATION : Enable or disable e-mail notification for the specified user.

NOTE: For security reasons, it is recommended that the ADMIN user password be changed after installing the DVR.

SYSTEM SETUP

USER - USER AUTHORITY

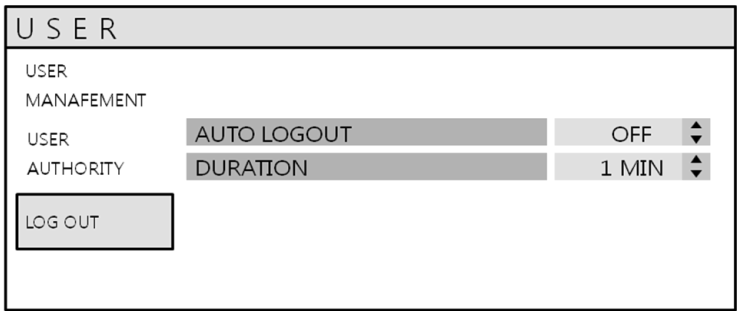


User can configure the specific authority and permissions for the MANAGER and USER groups.

To confirm changes, click the '**APPLY**' button after selecting each of the desired items.

NOTE: Any user can be deleted except the default '**ADMIN**' user account.

USER - LOG OUT



AUTO LOGOUT: Determines whether a logged-in user is automatically logged-out of the menu.

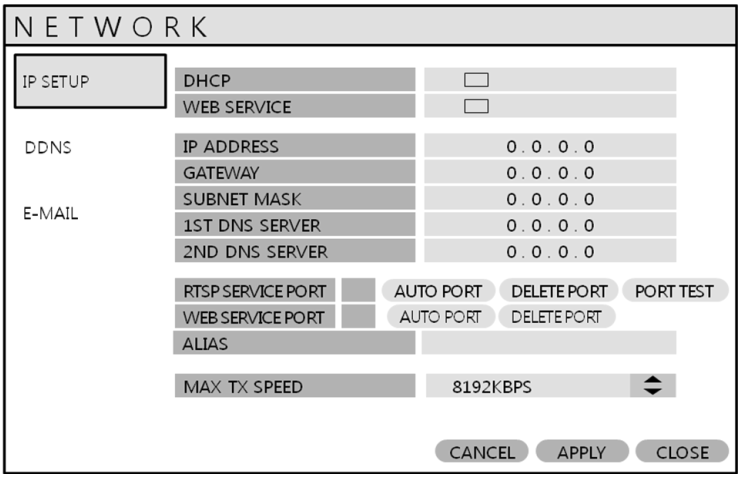
DURATION: Determines the amount of time before a logged-in user is automatically logged-out of the menu.

SYSTEM SETUP

NETWORK

From the '**System Setup**' menu, click on the '**NETWORK**' menu.

NETWORK- IP SETUP



Click on the '**IP SETUP**' menu.

DHCP : When enabled, the DVR will obtain an IP address automatically from a router or DHCP server, upon reboot.

WEB SERVICE : When enabled, allows remote connections using Internet Explorer or other compatible web browsers.

IP ADDRESS : If DHCP is not being used, the IP address can be manually set by the user.

GATEWAY : If DHCP is not being used, the gateway IP address can be manually set by the user.

SUBNET MASK: If DHCP is not being used, the subnet mask can be manually set by the user.

1ST DNS SERVER : If DHCP is not being used, the first DNS server can be manually set by the user.

2ND DNS SERVER : If DHCP is not being used, the second DNS server can be manually set by the user.

RTSP SERVICE PORT : If the connected Router supports UPnP (Universal Plug and Play) functionality, when you click '**AUTO PORT**', the port forwarding is automatically configured.

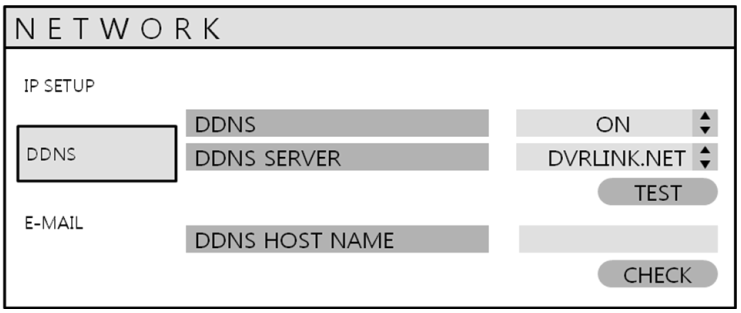
WEB SERVER PORT : The port number that the DVR uses to support remote connection from Internet Explorer or other compatible web browsers.

ALIAS : When you enter the DDNS HOST NAME within DDNS setup (*see next page*), you can see the DDNS Information, for example: http://1234.dvrlink.net:8080

MAX TX SPEED : Specifies the maximum bandwidth that the DVR can use during a remote connection.

SYSTEM SETUP

NETWORK-DDNS



DDNS : When enabled, the DVR can be accessed through a Dynamic DNS server.

(This is commonly used if a particular broadband connection does not have a Static IP address.)

CAUTION:

To use the DDNS function, the user must configure port forwarding.

a. Default WEB SERVICE PORT : 8080

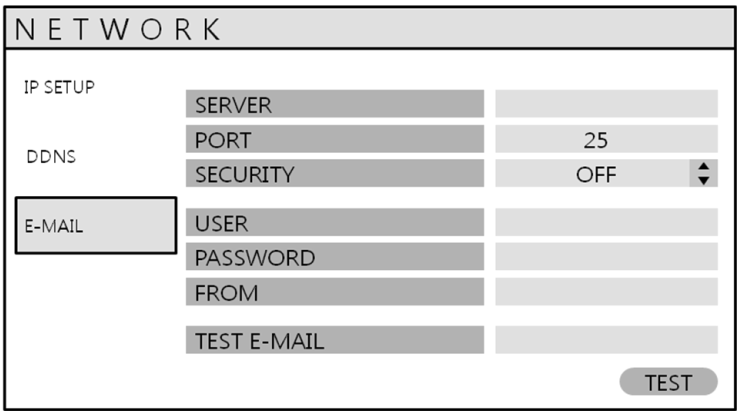
b. Default RTSP SERVICE PORT : 554

The Default DDNS Host Name is the Mac Address of the DVR, so the user can connect through two different ways: (Mac Address or Custom DDNS Host Name)

a. 00115ff00213.dvrlink.net

b. 1234.dvrlink.neet (user can choose any DDNS Host Name)

NETWORK - E-MAIL



Click on the '**E-MAIL**' submenu.

SERVER : The SMTP outgoing e-mail server that will be used to send e-mail notifications.

PORT : The outbound e-mail service port number.

SECURITY : Turn OFF if the SERVER does not require a username and password for SMTP authorization.

USER : Enter the user name for the account which will be sending e-mail messages from the SMTP server.

PASSWORD : If SECURITY is set to ON, enter the password here.

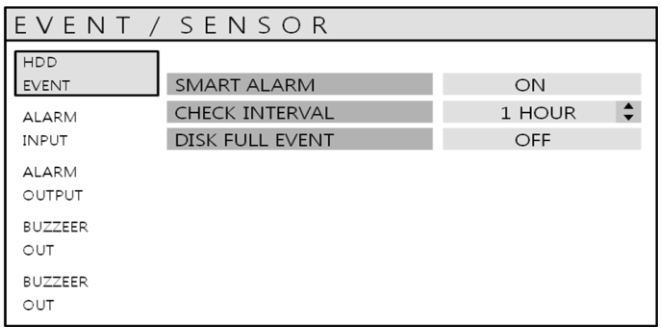
TEST E-MAIL : Test the configuration of the outgoing SMTP mail server.

SYSTEM SETUP

EVENT / SENSOR

From the '**System Setup**' menu, click on the '**EVENT / SENSOR**' menu.

EVENT / SENSOR - HDD EVENT



Click on the '**HDD EVENT**' menu, and choose any field.

. Use the button to modify the value.

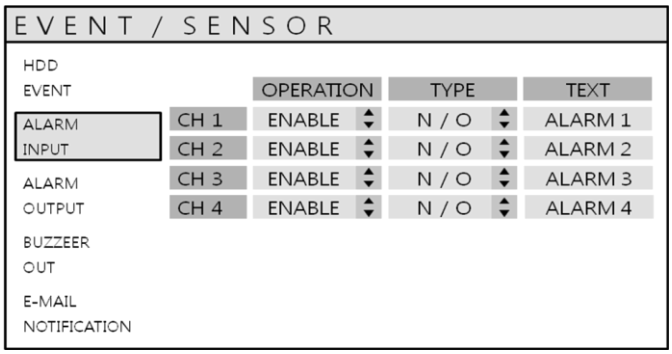
The DVR will continually monitor the health of the hard drives in the system and detect problems that may be developing.

SMART ALARM: Enables S.M.A.R.T. (Self-Monitoring, Analysis, and Reporting Technology) hard disk monitoring.

CHECK INTERVAL: Frequency of testing.

DISK FULL EVENT: Determines whether a 'Disk Full' condition would result in a HDD event.

EVENT / SENSOR - ALARM INPUT



Click on the '**ALARM INPUT**' menu, and choose any field.

Use the button to modify the value.

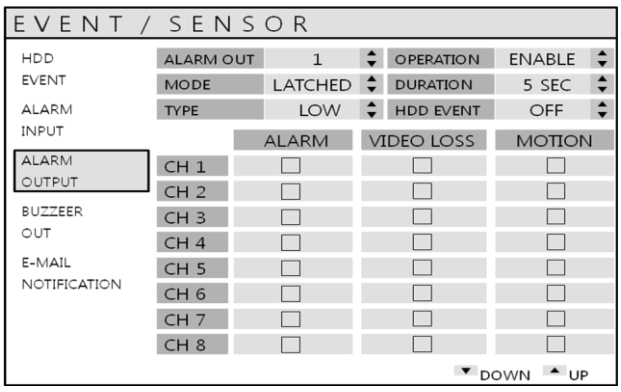
The menu will determine the behavior of each of the 16 alarm inputs.

OPERATION: Alarm inputs can be enabled or disabled.

TYPE: Alarm inputs can be set as normally open (N/O) or normally closed (N/C).

SYSTEM SETUP

EVENT / SENSOR - ALARM OUTPUT



Click on the **ALARM OUTPUT** menu, and click on a field.

Use the button to modify the value.

Behavior settings

ALARM OUT : Choose which alarm output to configure.

OPERATION : The selected alarm output can be enabled or disabled.

MODE : Can be either set as 'TRANSPARENT' (the output is active only when the trigger criteria is present) or 'LATCHED' (the output is active for a set period of time after the trigger).

DURATION : In 'LATCHED' mode, the amount of time that the alarm output remains active after it has been triggered.

TYPE : Can be set to high (0V to +5V when activated) or low (+5V to 0V when activated).

HDD EVENT : Determines whether a hard drive event will trigger an alarm output.

Action settings

ALARM : Determines whether the specific channel alarm input would trigger the alarm output.

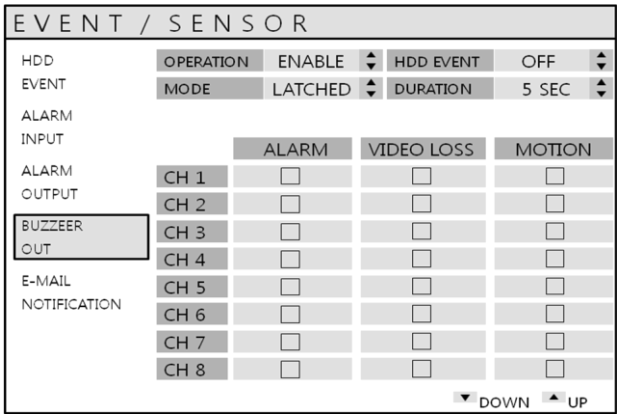
VIDEO LOSS : Determines whether video loss on any of the selected channels will trigger the alarm output.

MOTION : Determines whether motion detection on any of the selected channels will trigger the alarm output.

NOTE: Remember to select '**APPLY**' and press '**ENTER**' to save all settings before exiting these menus.

SYSTEM SETUP

EVENT / SENSOR - BUZZER OUT



Click on the **BUZZER OUTPUT** menu, and click on a field.

Use the button to modify the value.

This menu will determine the behavior and actions that will trigger the internal buzzer.

Behavior settings

OPERATION : The internal buzzer can be enabled or disabled.

HDD EVENT : Determines whether a hard drive event will activate the internal buzzer.

MODE : Can be set as either 'TRANSPARENT' (the buzzer sounds only when the trigger criteria is present) or 'LATCHED' (the buzzer sounds for a set period of time after the trigger).

DURATION : In 'LATCHED' mode, the time that the buzzer will continue to sound after it has been triggered.

Action settings

ALARM : Determines whether alarm inputs will activate the internal buzzer.

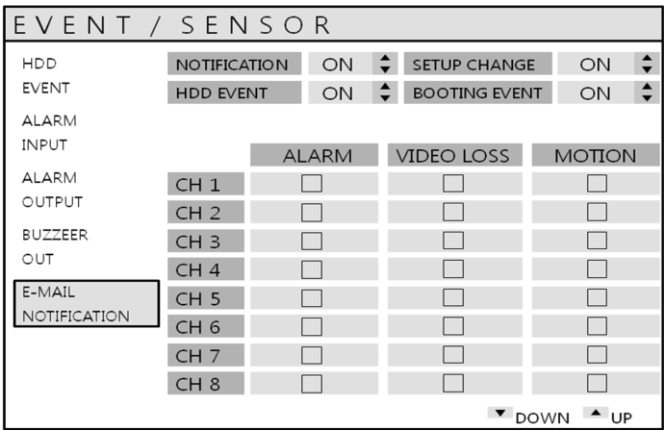
VIDEO LOSS : Determines whether video loss on any of the selected channels will sound the internal buzzer.

MOTION : Determines whether motion detection on any of the selected channels will sound the internal buzzer.

NOTE: Remember to select '**APPLY**' and press '**ENTER**' **to** save all settings before exiting these menus.

SYSTEM SETUP

EVENT / SENSOR - E-MAIL NOTIFICATION



Click on the **EMAIL NOTIFICATION** menu, and click on a field.

Use the button to modify the value.

This menu will determine the behavior and actions that will send an e-mail notification to a remote user.

Behavior settings

NOTIFICATION : E-mail notification can be enabled or disabled.

SETUP CHANGE: Determines whether a change to the system configuration would cause an e-mail to be sent.

HDD EVENT : Determine whether a hard drive event would cause an e-mail to be sent.

BOOTING EVENT: Determines whether a booting event would cause an e-mail to be sent.

Action settings

ALARM : Determine whether alarm inputs will cause an e-mail to be sent.

VIDEO LOSS : Determine whether video loss on any of the selected channels will cause an e-mail to be sent.

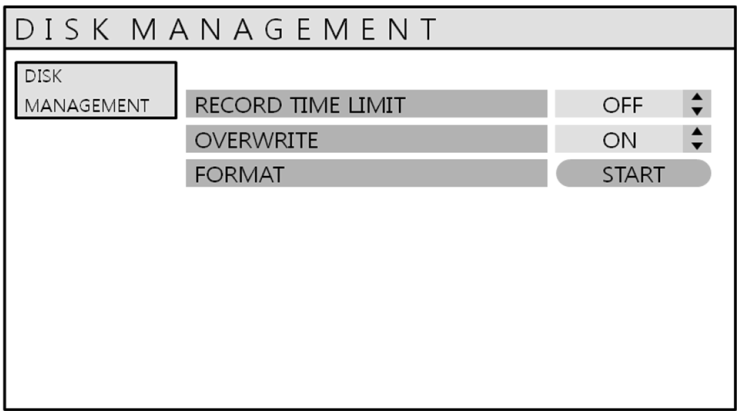
MOTION : Determine whether motion detection on any of the selected channels will cause an e-mail to be sent.

FREQUENCY : Minimum period of time between sending e-mail notifications (max. 60 minutes).

NOTE: E-mail Notification settings must also be configured within the '**MAIL**' and '**USER MANAGEMENT**' menus.

SYSTEM SETUP

DISK MANAGEMENT



Click on the **DISK MANAGEMENT** menu.

To manage the internal hard drives, from the '**System Setup**' menu, highlight '**DISK MANAGE**' and press **ENTER**.

RECORD TIME LIMIT: In certain circumstances, it may be necessary to limit the amount of footage stored on the DVR (to comply with data protection laws, for example).

Recording can be limited to the following time periods: 12 hours, 1, 2, 3, 4, 5, 6 days, 1, 2, 3 weeks or 1, 2 months.

Once the DVR has reached the recording time limit, the system will start to overwrite the earliest recorded footage.

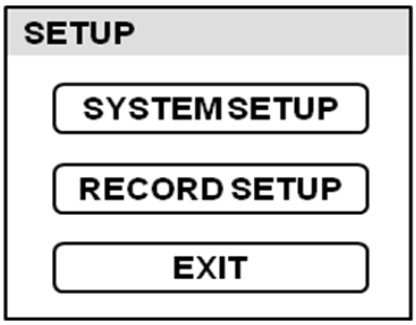
OVERWRITE: When enabled, the DVR will start overwriting the earliest recorded footage once the hard drive is full. In this case, the percentage of hard drive used shown in live display will always be 99%.
When disabled, the DVR will stop recording when the disk becomes full.

FORMAT: If necessary, all recorded footage can be erased from the DVR using this option.

NOTE: When the RECORD TIME LIMIT is set, the percentage of HDD used shown in live display mode may never reach 99%. For example, if the total HDD capacity of the DVR allows for a recording time of 4 days under normal operation, if the RECORD TIME LIMIT is set to only 2 days, the percentage of HDD used would never exceed 50%.

NOTE: When a RECORD TIME LIMIT is set, the OVERWRITE option cannot be changed.

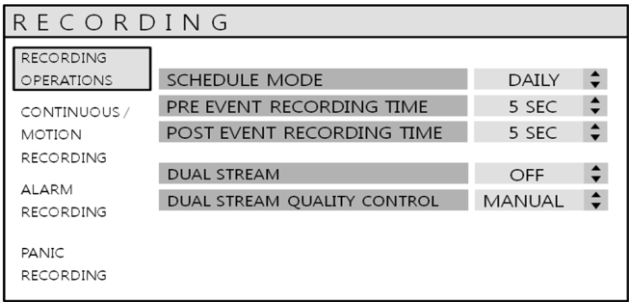
RECORD SETUP



From the Main Menu, click on the '**RECORD**' menu.

To configure the recording behavior of the DVR, highlight '**RECORD MENU**' and press '**ENTER**'.

RECORDING OPERATIONS



Click on the '**RECORDING OPERATIONS**' menu.

Click on any field, and use the button to modify the value.

SCHEDULE MODE : Either DAILY (one schedule will apply to every day of the week) or WEEKLY (each day of the week has its own schedule).

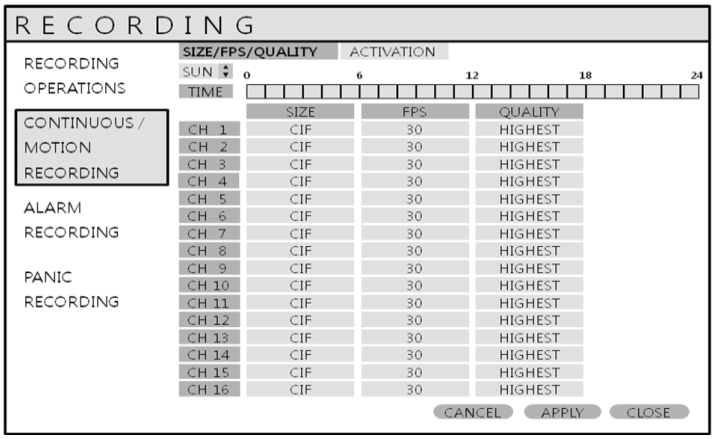
PRE-EVENT RECORDING TIME : When the DVR is not in continuous recording mode, this setting determines the amount of footage that is always recorded before an event occurs. (motion detection, alarm input, etc.)

POST-EVENT RECORDING TIME : When the DVR is not in continuous recording mode, this setting determines the amount of footage that is always recorded after an event occurs. (motion detection, alarm input, etc.)

DUAL STREAM :User can set 2nd data stream for network data transmit.
When user selects 'Manual' for quality control, user can set quality for 2nd stream also.

RECORD SETUP

CONTINUOUS / MOTION RECORDING SETUP



Click on the

'**CONTINUOUS / MOTION RECORDING**' menu.

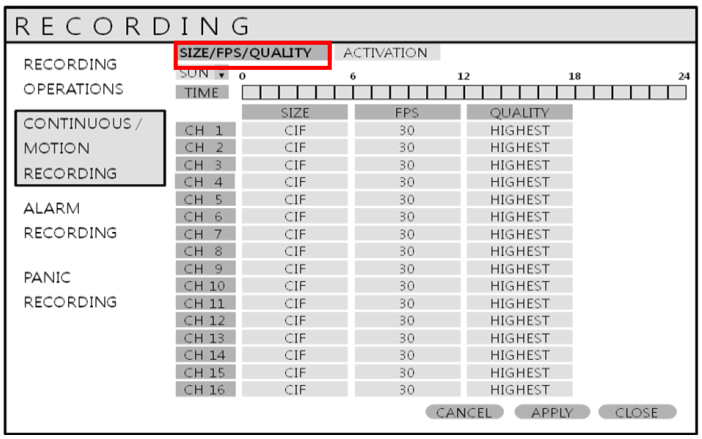
This menu allows the operator to configure continuous and motion-activated recording, based on a schedule.

There are 2 sections to this menu:

SIZE / IPS / QUALITY:**:** Recording settings for each channel can be defined across a 24-hour period, in blocks (for example between 09:00 and 18:00) or by each individual hour. Note that when SCHEDULE MODE is set to WEEKLY, each day of the week can be individually configured.

SCHEDULE: This section determines at what times the DVR will record and whether it is set to continuous or motion.

SIZE / IPS / QUALITY



Click on the '**SIZE / IPS / QUALITY**' tab.

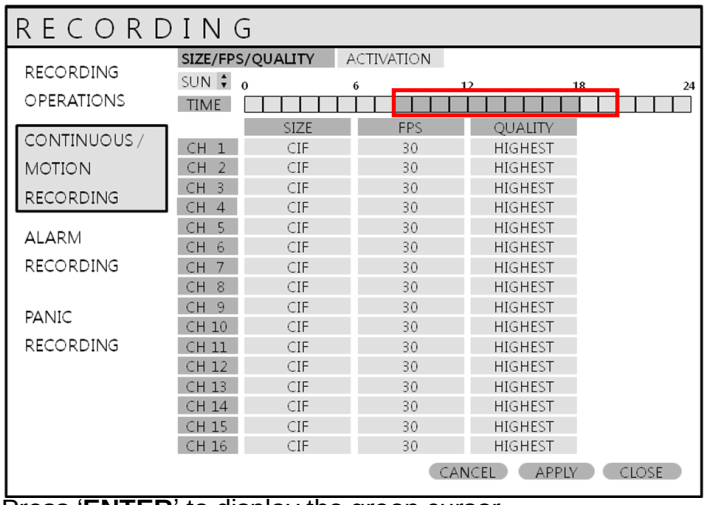
To change '**SIZE / IPS / QUALITY**' settings, highlight '**CONTINUOUS / MOTION SETUP**' and press '**ENTER**'.

Ensure that '**SIZE / IPS / QUALITY**' is highlighted in yellow, and press '**ENTER**' again.

The 24 hour time bar is highlighted in green.

RECORD SETUP

SIZE / IPS / QUALITY (continued)

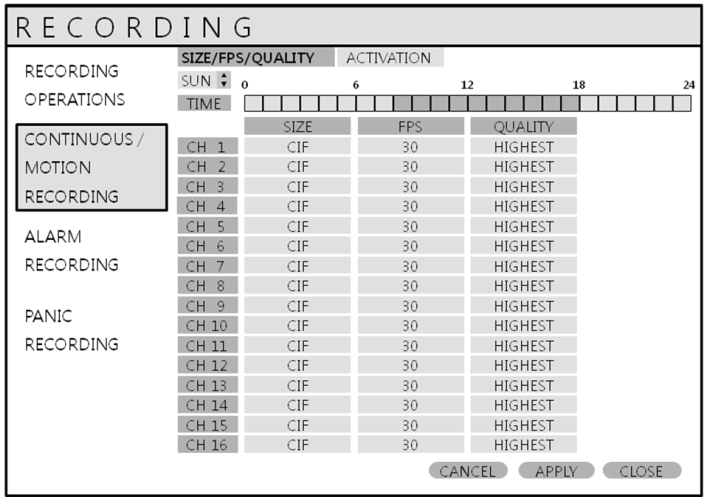


Click on the **TIMELINE** to select a block of time.

Press '**ENTER**' to display the green cursor.

The green cursor square shown represents one hour. (In this case between 00:00 and 01:00).

The table below the time bar shows the recording settings for this time period.



Click and drag on the **TIMELINE** to select a block of time.

Example: To change the recording settings between 09:00 and 18:00.

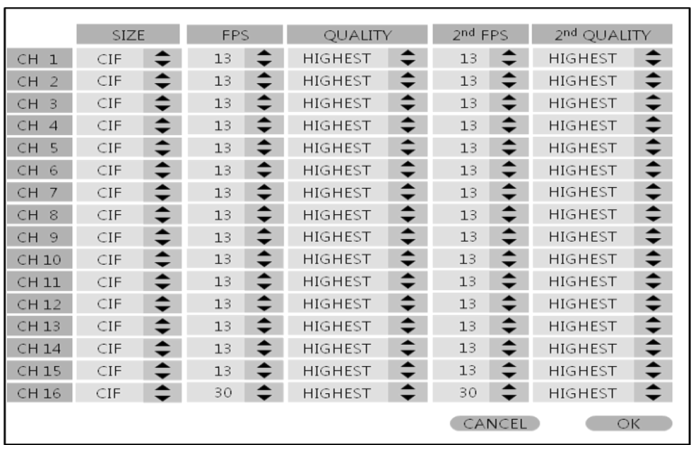
Use the **CURSOR KEYS** to move the green cursor to the 09:00 position and press '**ENTER**'.

The cursor changes to orange to show the start position.

Use the **CURSOR KEYS** to stretch the orange cursor across to the 18:00 position.

RECORD SETUP

SIZE / IPS / QUALITY (continued)



	SIZE	FPS	QUALITY	2nd FPS	2nd QUALITY
CH 1	CIF	13	HIGHEST	13	HIGHEST
CH 2	CIF	13	HIGHEST	13	HIGHEST
CH 3	CIF	13	HIGHEST	13	HIGHEST
CH 4	CIF	13	HIGHEST	13	HIGHEST
CH 5	CIF	13	HIGHEST	13	HIGHEST
CH 6	CIF	13	HIGHEST	13	HIGHEST
CH 7	CIF	13	HIGHEST	13	HIGHEST
CH 8	CIF	13	HIGHEST	13	HIGHEST
CH 9	CIF	13	HIGHEST	13	HIGHEST
CH 10	CIF	13	HIGHEST	13	HIGHEST
CH 11	CIF	13	HIGHEST	13	HIGHEST
CH 12	CIF	13	HIGHEST	13	HIGHEST
CH 13	CIF	13	HIGHEST	13	HIGHEST
CH 14	CIF	13	HIGHEST	13	HIGHEST
CH 15	CIF	13	HIGHEST	13	HIGHEST
CH 16	CIF	30	HIGHEST	30	HIGHEST

CANCEL OK

Click on the **SIZE**, **IPS**, **QUALITY** fields.

Use the button to modify the value.

Press **ENTER**. Recording settings for the selected time period are displayed.

SIZE : Recording resolutions of CIF (352x240), 2CIF (704x240) or D1 (704x480) can be selected for each channel.

FPS : Image rates between 1 and 30ips can be set for each channel.

QUALITY : Four different recording quality levels can be set for each channel.

Adjust the values as desired and select OK to finish and return to the parameter menu.

Other time periods can be configured in the same manner.

NOTE: Remember that if the SCHEDULE MODE is set to WEEKLY, recording settings need to be changed for each day as well as for each particular time.

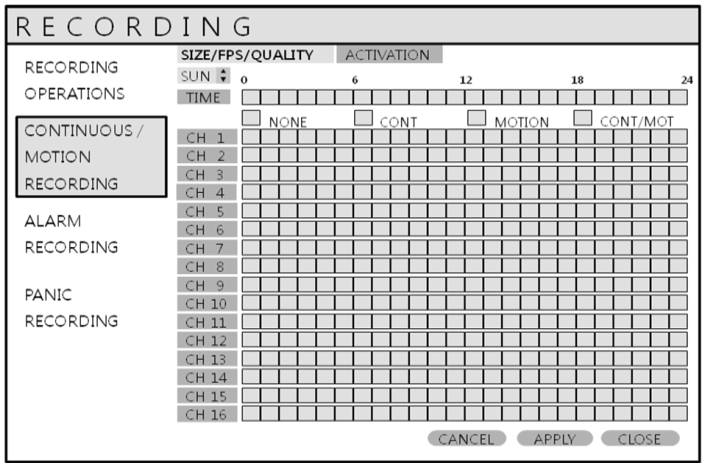
NOTE: 16CH supports a maximum recording rate across all channels of 480/400 images per second at CIF (352x240) resolution. (8/4CH: 240/200ips)

As settings are adjusted, the 'frames available' at bottom left displays the number of available images still remaining and must always be zero or higher.

If, while changing recording settings, this figure becomes negative, recording resolutions and/or image rates must be lowered to increase the 'frames available' value to zero or above.

RECORD SETUP

SCHEDULE

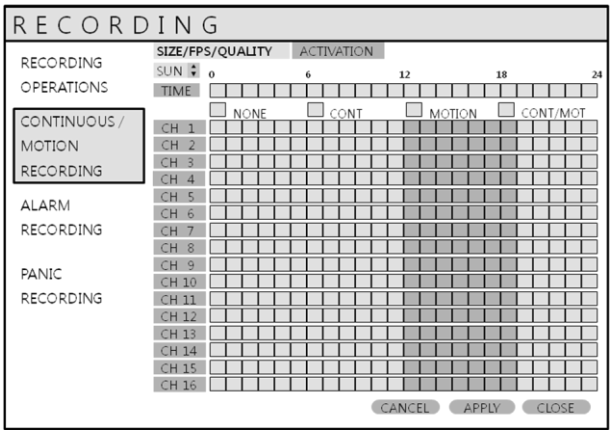


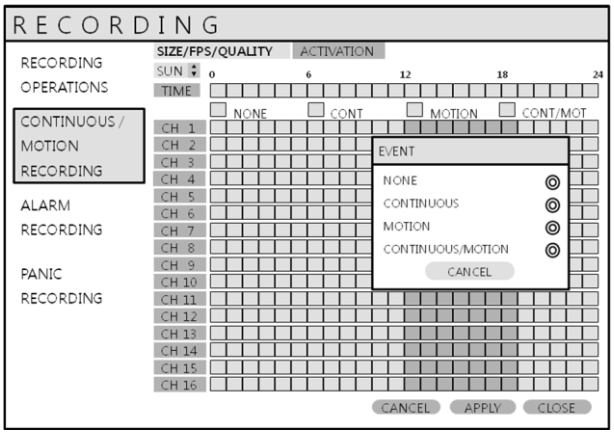
Click on the '**SCHEDULE**' menu.

To change '**SCHEDULE**' settings, highlight '**CONTINUOUS / MOTION RECORDING**' and press '**ENTER**'.

Use the **CURSOR KEYS** to highlight '**SCHEDULE**' and press '**ENTER**'.

The schedule box is highlighted in green.





Press '**ENTER**' to display the green cursor square.

Example: To set all channels to motion detection recording only between 18:00 and 00:00.

Use the **CURSOR KEYS** to move the green cursor to the 18:00 position and press '**ENTER**'.

The cursor changes to orange to show the start position.

The schedule grid uses differently-colored blocks to denote the different recording modes:

- NO COLOR blocks: No recording.

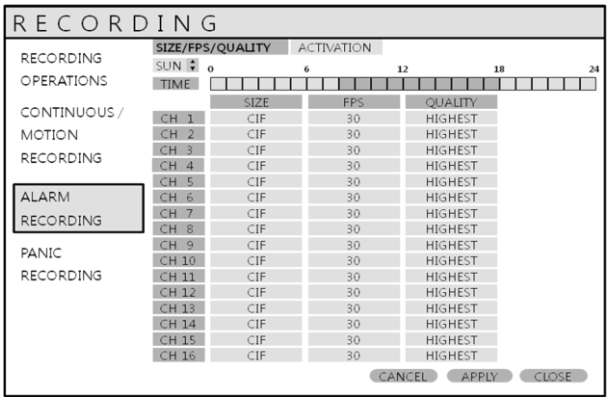
- LIGHT BLUE blocks: The DVR will record continuously.

- DARK BLUE blocks: The DVR will only record while motion is detected.

- PINK blocks: The DVR will record continuously and with motion event.

RECORD SETUP

ALARM RECORDING



Click on the '**ALARM RECORDING**' submenu.

The layout of this menu is very similar to the '**CONTINUOUS / MOTION RECORDING**' menu.

This menu screen allows the user to configure alarm-activated recording.

There are 2 sections to this menu:

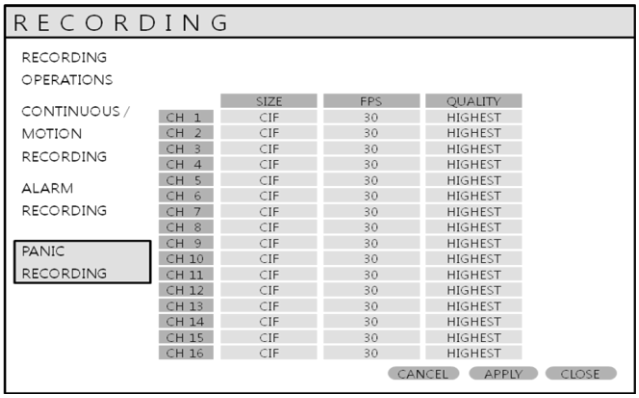
SIZE / IPS / QUALITY:**:** Recording settings for each channel can be defined across a 24-hour period, in blocks

SCHEDULE: This section determines at what times the DVR will record and whether it is set to continuous or motion.

NOTE: *Please refer to the instructions for the '**CONTINUOUS / MOTION RECORDING**' menu for details on setting up the '**SIZE / IPS / QUALITY**' and '**SCHEDULE**' tabs within the '**ALARM RECORDING**' menu.*

Alarm-activated recording can be used in conjunction with the '**CONTINUOUS / MOTION RECORDING**' menu.
The DVR can be configured to record continuously at a low image rate ('**CONTINUOUS / MOTION RECORDING**' menu), and then increase to a higher image rate during an alarm condition. ('**ALARM RECORDING**' menu)

PANIC RECORDING



Click on the '**PANIC SETUP**' submenu.
Click on the **SIZE**, **IPS**, **QUALITY**.

During a Panic Recording condition, the DVR will override all other recording settings and record continuously on all channels as per the settings configured here.

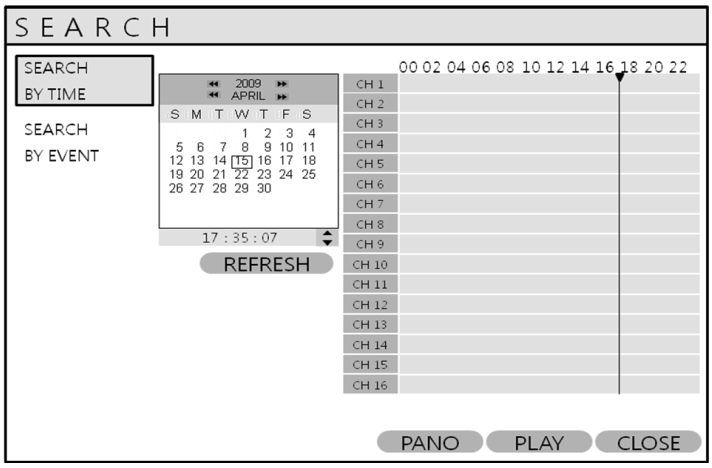
SEARCH

To search for a particular section of recorded footage, click or press the '**SEARCH**' button.

To protect unauthorized viewing of footage, only **ADMIN** and **MANAGER** user groups can playback footage (by default).

To login as **ADMIN**, enter the default password of '**1234**' and press '**ENTER**'.

SEARCH – SEARCH BY TIME



Click on the desired search date from the calendar.

The DVR uses a calendar and timeline search method for quick access to recorded footage.

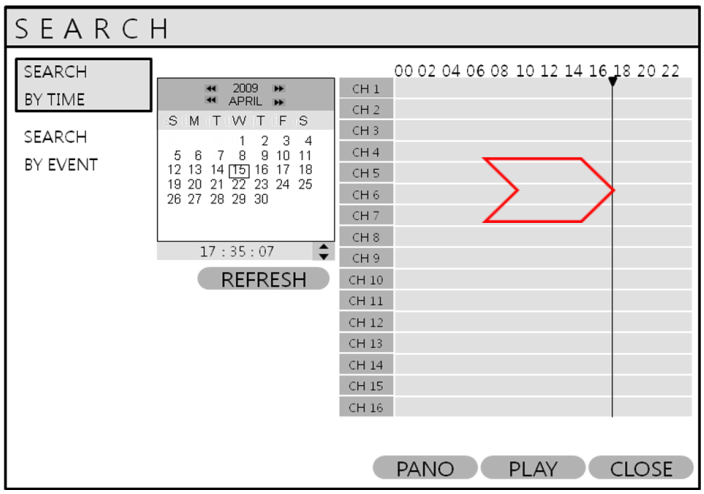
The calendar displayed on the left side of the screen shows the current month.

Days which have any recorded footage will be highlighted in green.

The timeline on the right side of the screen shows a 24-hour status of all channels for the selected day.

Each block represents 15 minutes of time. Light blue areas indicate the presence of recorded video.

SEARCH

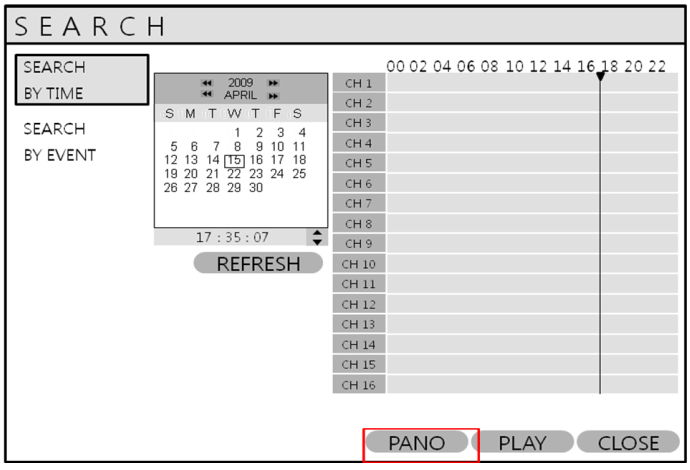


Click and drag the time bar across the timeline.

Press **ENTER** to select the calendar and use the **CURSOR KEYS** to move the purple square to the desired day.

As different days are selected, the timeline display also changes to show the timeline of recorded footage for that day.

Press **ENTER** to choose the date and move to the timeline.



Click the **PLAY** button on the bottom of the screen.

Use the **CURSOR KEYS** to move the timeline cursor left or right to select the desired time segment.

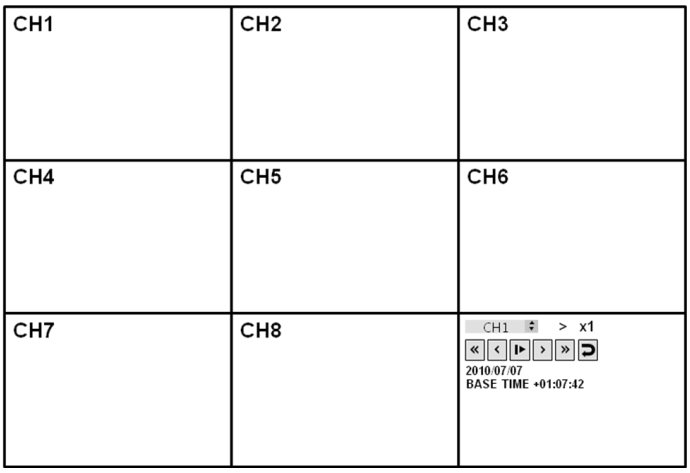
Each movement of the timeline cursor increases or decreases the time by 15 minutes.

The currently selected time is displayed above the calendar.

Press **ENTER** to begin playback from the selected time.

SEARCH

SEARCH MODE : PANO



PANO (Panoramic or Time-of-Day Search) :

Each display pane shows 3 hour of data.

CH1 : 0~3 o'clock

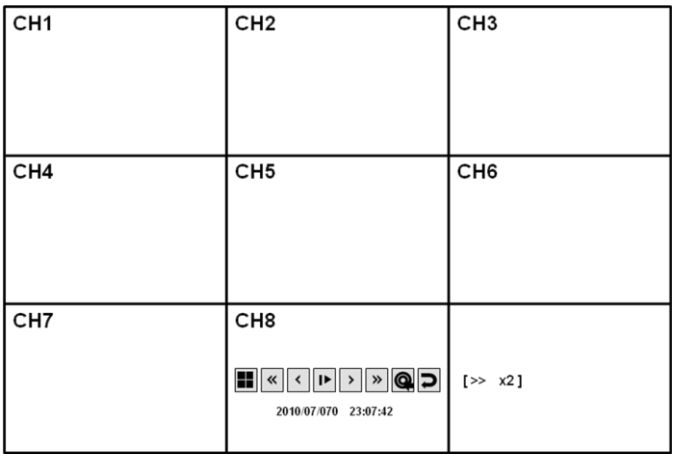
CH2 : 3~6 o'clock

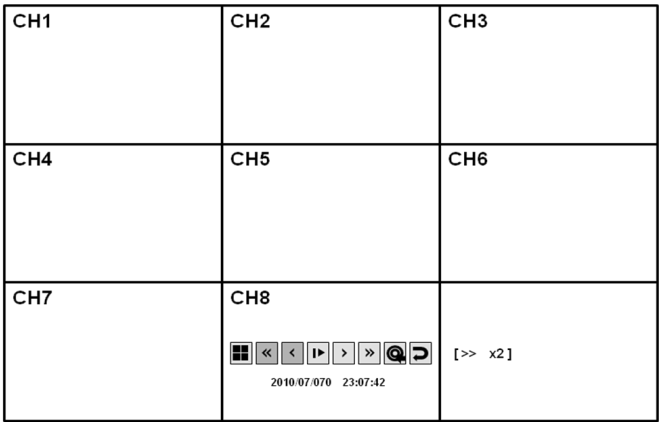
…

CH8: 21~24 o'clock

User can select different channels and play back using variable play speeds - up to 64x.

SEARCH MODE : Multi-Playback





The default playback mode is 16-channel view.

By pressing **DISPLAY** or using the **CHANNEL SELECTION** buttons, it is possible to display a single screen or other screen display modes similar to the standard live screen display modes. During playback, turning the **SHUTTLE WHEEL** steadily clockwise increases the playback speed by up to 64x.

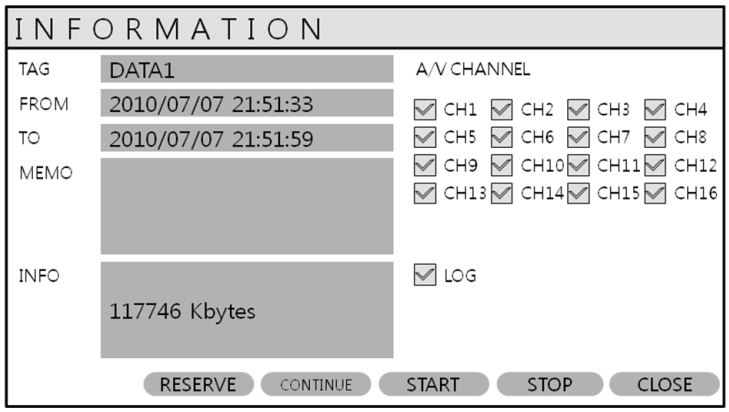
Turning counter-clockwise will reverse play up to 64x. If the **SHUTTLE WHEEL** is released, playback is paused. If the **HOLD** button is pressed and released during **SHUTTLE WHEEL** operation, the last shuttle position is held, even when the wheel is released.

When playback is paused, the **JOG DIAL** can be used to accurately move the footage forward or backwards, frame by frame. Playback speed and direction can also be controlled using the five playback control buttons located below the jog wheel.

SEARCH

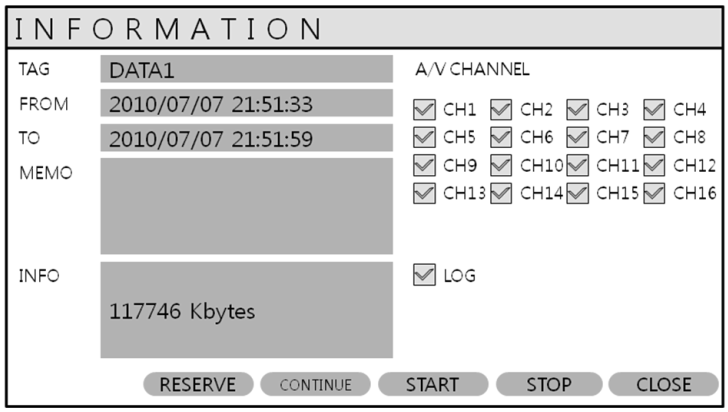
During playback, user can put a bookmark on the recorded data that needs to be archived later.

Click the button at the time the archive is to be started. Then playback will halt and menu below will appear.



After inputting the “TAG” name, press **START**. Then the system will return to playback mode.

Click the button again at the end point of the archive. The menu below will appear once again.



RESERVE : Press this button to reserve the currently selected data.

CONTINUE : Press this button to go back and reserve more data. The system will return to playback mode.

START : Press this button to start the reservation.

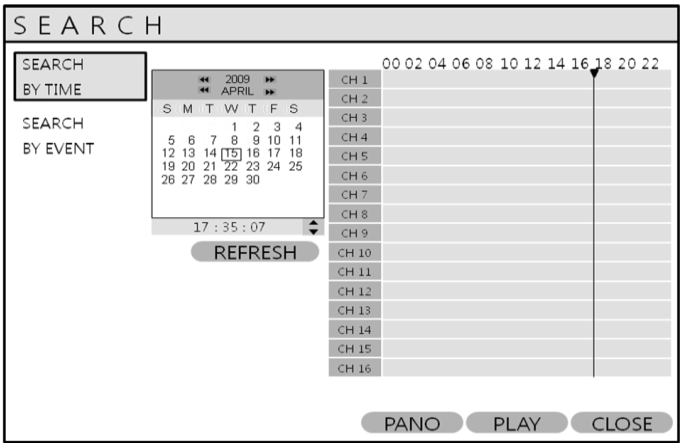
STOP : Make sure to press this button to reserve the current data first. Then user can select RESERVE.

CLOSE : Close the reservation menu and finish archiving.

NOTE: Reserved data will be kept on the HDD.

The user can view all of the reserved clips listed in ‘**RESERVED DATA MANAGEMENT**’ within the **ARCHIVING** menu.

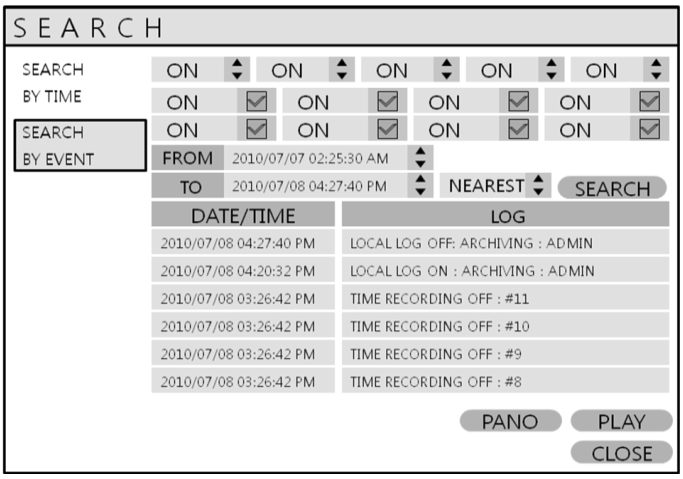
SEARCH



To exit playback mode and return to the search screen in order to choose another time and date, press '**RETURN**'.

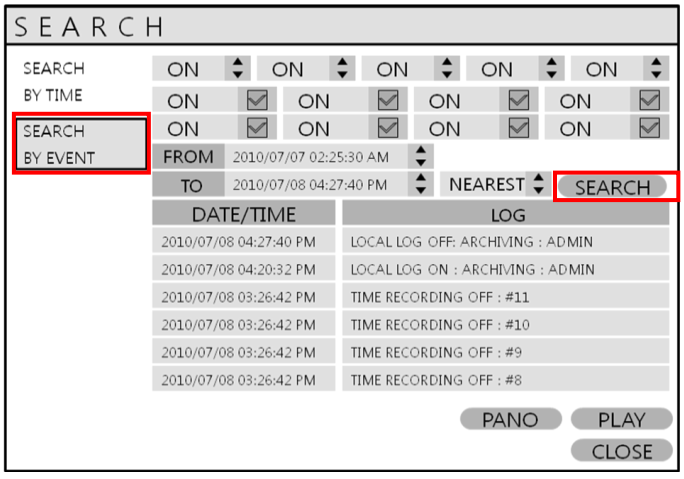
To exit the search screen and return to Live View mode, repeatedly press the '**RETURN**' button.

SEARCH – SEARCH BY EVENT



The DVR event log stores events such as motion and alarm activated recording, video loss etc.

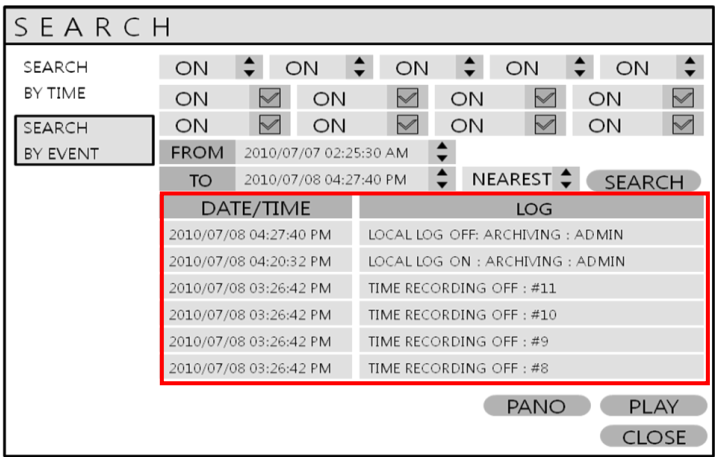
To search for an event and playback the recorded footage, press the **SEARCH** button and log in as ADMIN with the default password of 1234.



Click the '**SEARCH BY EVENT**' menu.

Check all desired options. Use the buttons to select the desired date and time range to search for events.

SEARCH

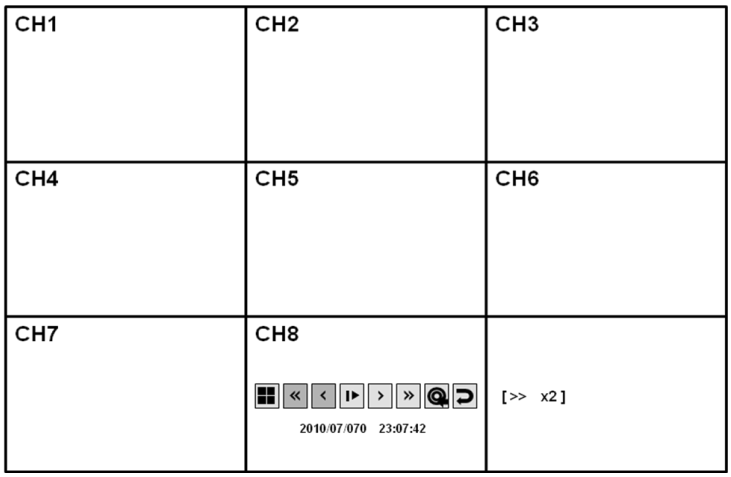


Click the '**SEARCH**' button to search for events.

.

Highlight '**SEARCH**' and press '**ENTER**' to display the event log for the criteria selected.

To playback footage for a particular event, select the event from the list using the **CURSOR KEYS** and press '**ENTER**'.



Playback resumes from the moment the selected event occurred and continues until stopped by the user.

During event-based playback, the **SHUTTLE WHEEL, JOG RING** and playback buttons can be used as normal.

To stop playback and return to live view mode, repeatedly press the '**RETURN**' button.

The event log search contains the following selectable entries:

ALARM: When this option is checked, all alarm input events are displayed for the chosen date range.

TIMER: When this option is checked, scheduled recording operations are displayed for the chosen date range.

MOTION: When this option is checked, all motion detection events are displayed for the chosen date range.

ETC: When this option is checked, all other events (video loss, remote logins, etc.) are displayed for date range.

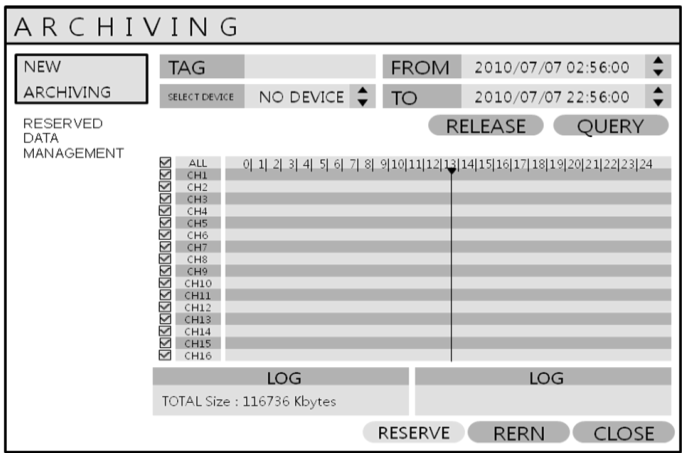
ARCHIVING

To archive recorded footage to a USB Memory Stick or a CD/DVD disc, press the **ARCHIVE** button.

To protect unauthorized viewing and distribution of footage, only the **ADMIN** user level can archive footage (by default).

To login as **ADMIN**, enter the default password of '**1234**' and press '**ENTER**'.

CREATE A NEW ARCHIVE



Click on a field to configure each of the archive settings.

Use the button to modify each value.

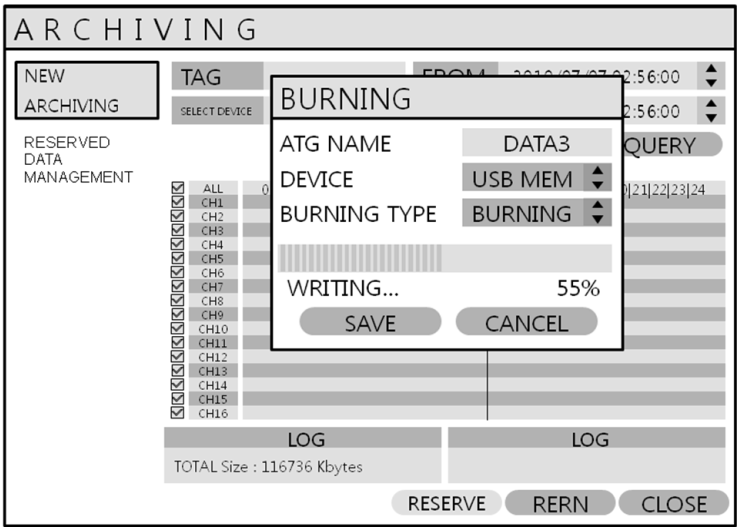
Click **QUERY** to view the data size of the selected clip.

It is useful to use '**QUERY**' first before selecting '**BURN**' or '**RESERVE**'.

Press the '**RELEASE**' button to reset the results from any previous '**QUERY**'.

RESERVE : Press this after inputting the "TAG" name to reserve the selected clip.

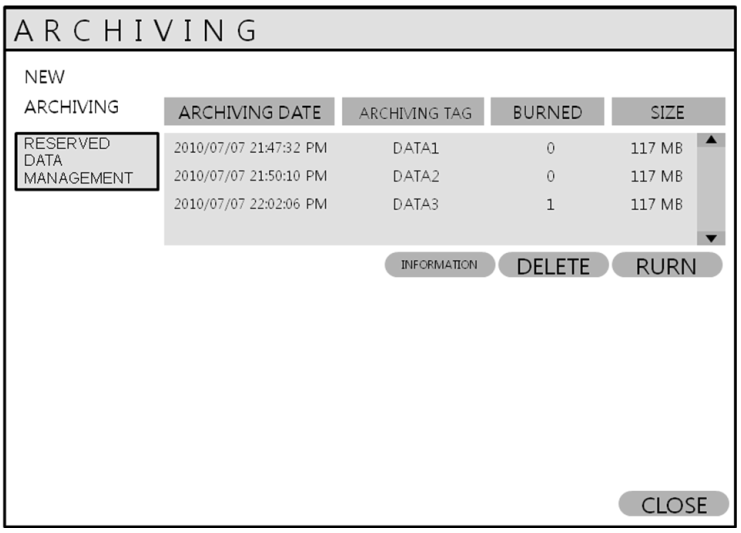
BURN : Press this after inputting the "TAG" name. Then press '**START**' after viewing the confirmation window.



NOTE: To use a USB Memory Stick, it must be inserted into the DVR before entering the archiving menu.

ARCHIVING

RESERVED DATA MANAGEMENT



AVI ARCHIVING LIST: User can see the list of data that has been reserved from the '**Create New Archive**' menu

INFORMATION : The detailed information of each clip that has been reserved.
DELETE : Delete the selected clip from the list of reserved data.
BURN : Perform an archiving operation using the selected clip.

Once all the desired archive options have been selected, highlight the '**START**' button and press '**ENTER**'.

The DVR displays a list showing the exact information to be archived and the total archive size.
If the **ORIGINAL SIZE** of the archive is larger than the amount of available space on the backup media, the **END TIME** of the archive is adjusted accordingly. The **MODIFIED SIZE** is the final file size of the archive.

Select "**OK**" and press '**ENTER**' to begin the archiving process.

Once extracted, the footage is copied to CD/DVD or USB.

Depending on the amount of footage selected for archive, the extracting and burning process may take some time, during which the operating system of the DVR cannot be used. Normal recording is unaffected by the archive process.

NOTE: In case the selected data size for archiving exceeds the size of the CD / DVD / USB media being used, the user may choose to continue the archive on additional pieces of media until complete.
Insert a new disc or drive after the first archive has completed, and click or press 'CONTINUE'.

WEB CONNECTION SETUP

PRELIMINARY BEFORE CONNECTING

When configuring for a web or remote connection to the DVR, Ports 554 and 8080 should be forwarded within the router.

Refer to the user's manual of your specific model of router for information on port forwarding configuration.

WEB / REMOTE CLIENT - MINIMUM PC REQUIREMENTS	
CPU	P4 (3.0GHz or higher)
RAM	512MB (or higher)
Video Card	GeForce MS 400, ATI Radeon 7500 (or higher)
	GeForce 8 Series (or higher)
Video RAM	64MB (or higher)
Monitor	1280x1024
Operating System	Windows XP Service Pack 2 (or higher)
Web Browser	IE 6.0 (or higher)
Network / LAN	at least 100Mbps
DirectX	Version 7.0 (or higher)

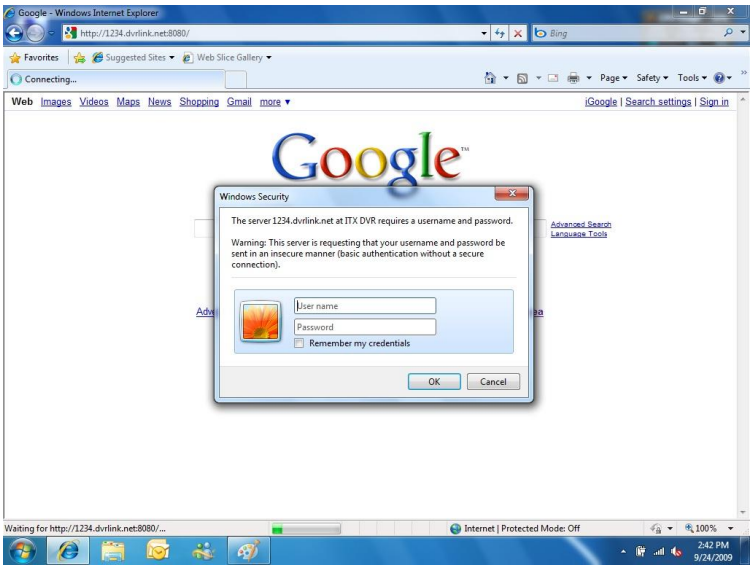
HOW TO CONNECT

Input the IP address or URL of the DVR into the Address Bar of your web browser.

If using a DDNS service, you may input the URL as shown below:

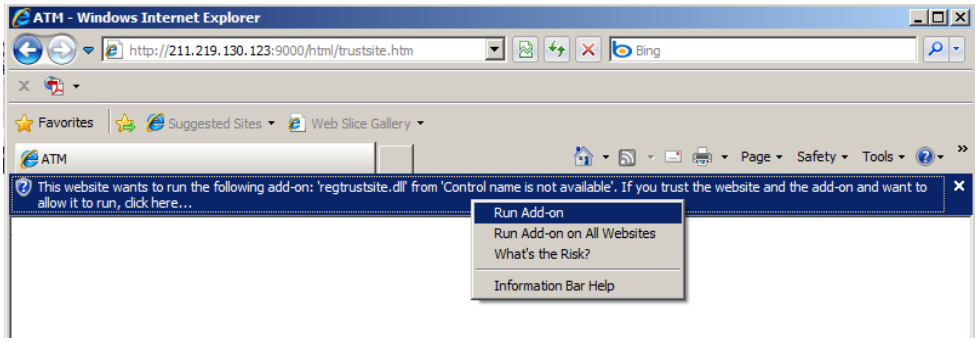
http://1234.dvrlink.net:8080 (webport :8080) **or**

http://1234.dvrlink.net (webport :80)


Google - Windows Internet Explorer
http://1234.dvrlink.net:8080/
Google
Windows Security
The server 1234.dvrlink.net at ITX DVR requires a username and password.
Warning: This server is requesting that your username and password be sent in an insecure manner (basic authentication without a secure connection).
User name
Password
Remember my credentials
OK
Cancel

WEB CONNECTION SETUP

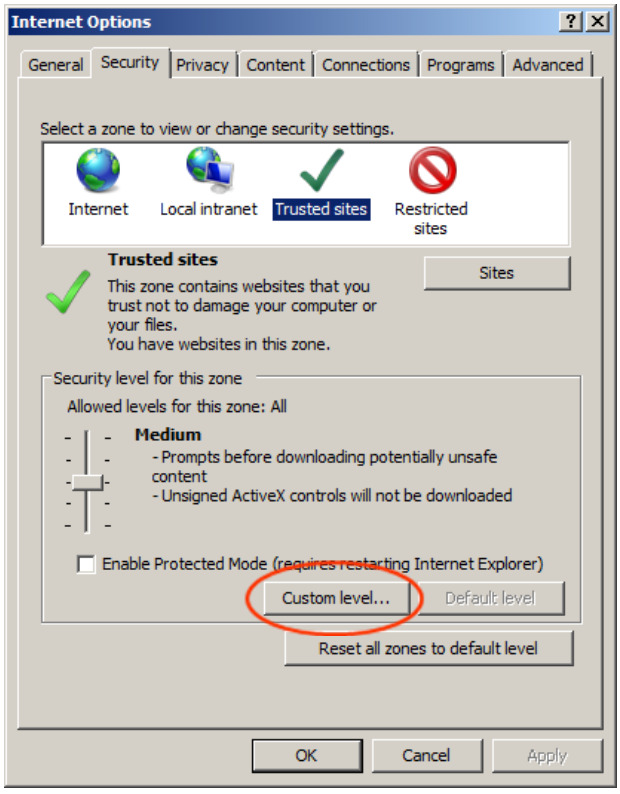
The default User ID and Password are '**ADMIN**' & '**1234**', respectively.

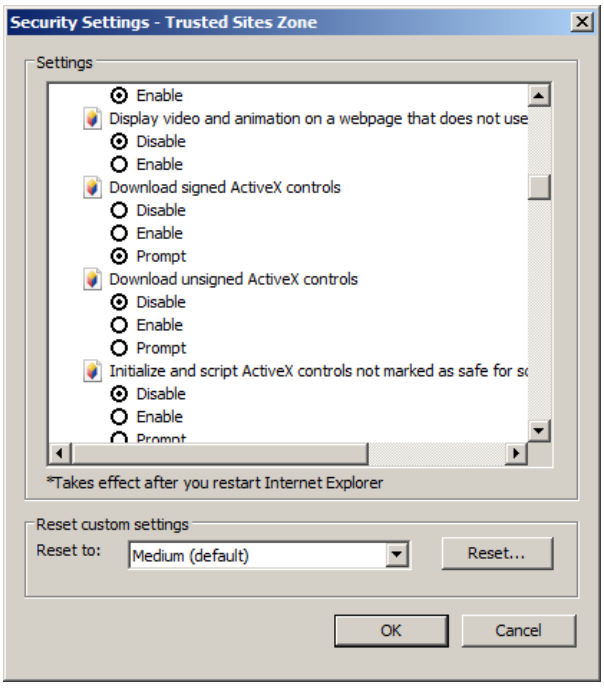

ATM - Windows Internet Explorer
http://211.219.130.123:9000/html/trustsite.htm
Bing
Favorites
Suggested Sites
Web Slice Gallery
ATM
Page
Safety
Tools
This website wants to run the following add-on: 'regtrustsite.dll' from 'Control name is not available'. If you trust the website and the add-on and want to allow it to run, click here...
Run Add-on
Run Add-on on All Websites
What's the Risk?
Information Bar Help

User will need to install the ActiveX control, click Run Add-on.

Internet Explorer - Security Warning
Do you want to install this software?
Name: itxview Control
Publisher: AHOPE Co., LTD.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

In case of not being able to install ActiveX, the user needs to enable ActiveX within the IE security menu.



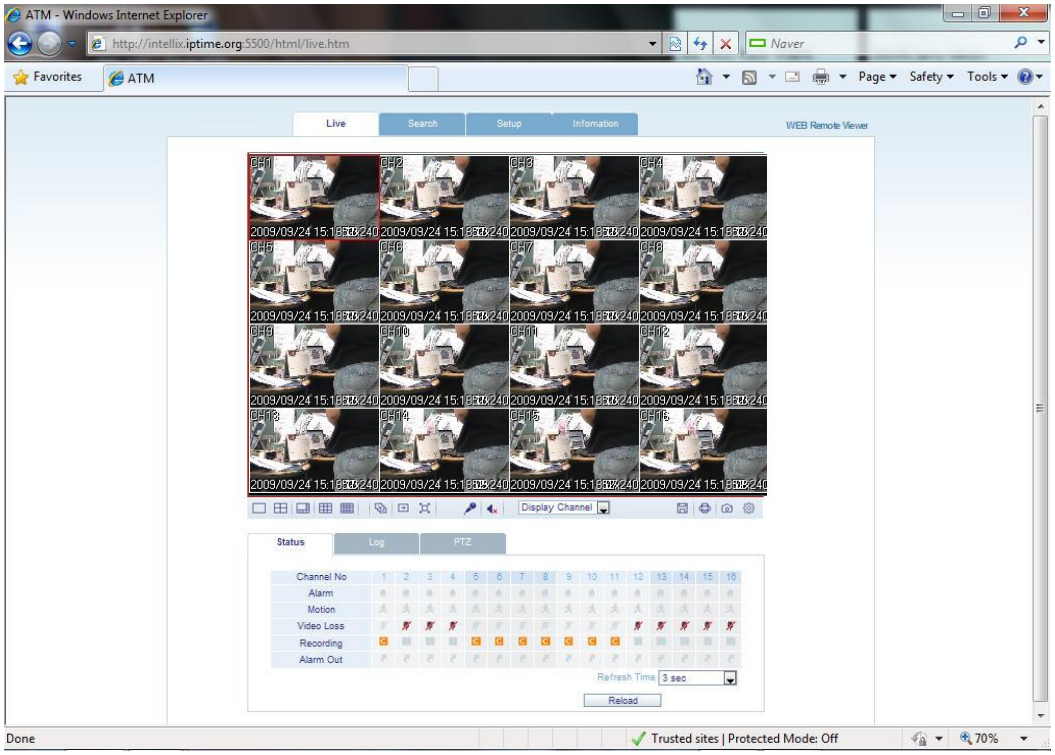


Select 'Enable' for all ActiveX-related options:

("Download signed ActiveX controls", "Download unsigned ActiveX controls", etc.)

WEB CONNECTION SETUP

LIVE MODE



Icons and corresponding functions within LIVE mode:

- Select **Live View Screen Division** (1, 4, 8, 9, 16-channel modes)

- **Sequence** Mode
- Move to **Next Camera**
- **Full Screen**

- **Select Live View Channel Manually**.

- **Save** the current live image.
- **Print** the current live image.
- Take a **Snapshot** of the current live image.

WEB CONNECTION SETUP

- **Status** : Shows active status indicators of all channels on the DVR.
    1. **Alarm** - indicator will be marked when system detects Alarm Input.
    2. **Motion** - indicator will be marked when system detects Motion.
    3. **Video Loss** - indicator will be marked when system detects Video Loss.
    4. **Recording** - Display current recording mode. *(T: Timer or Continuous, M: Motion, A: Alarm Recording)*
    5. **Alarm Out** - indicator will be marked when system detects Alarm Output.
    6. **Refresh Time** – interval for the information on the status panel to refresh.

- **Log** : Display the system event log in real time.

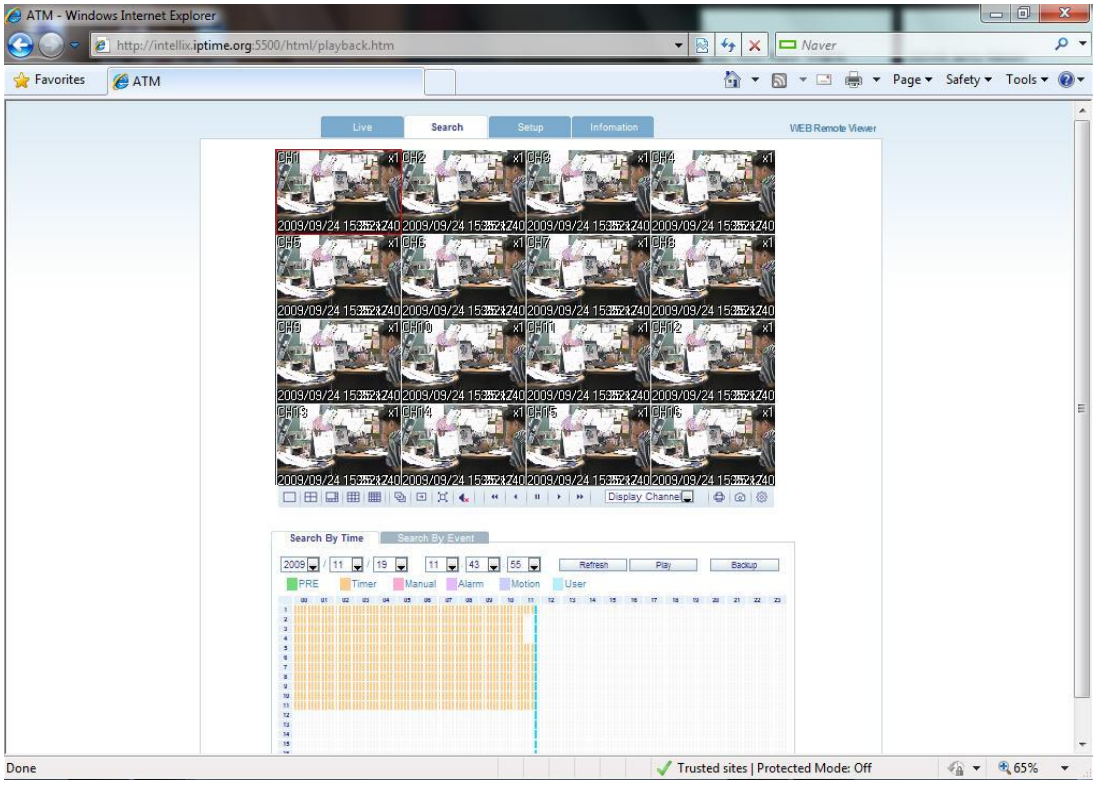
Status
Log
PTZ
No.
Camera Title
Date Time
Log
1 CH16 2009.09.24 10:57:20 TIMER RECORDING ON : #16
2 CH15 2009.09.24 10:57:20 TIMER RECORDING ON : #15
3 CH14 2009.09.24 10:57:20 TIMER RECORDING ON : #14
4 CH13 2009.09.24 10:57:20 TIMER RECORDING ON : #13
5 CH12 2009.09.24 10:57:20 TIMER RECORDING ON : #12
6 CH11 2009.09.24 10:57:20 TIMER RECORDING ON : #11
7 CH10 2009.09.24 10:57:20 TIMER RECORDING ON : #10
8 CH9 2009.09.24 10:57:20 TIMER RECORDING ON : #9
Page Down
Page Up
Refresh Time
3 sec
Reload

- **PTZ** : Control any connected PTZ camera remotely.

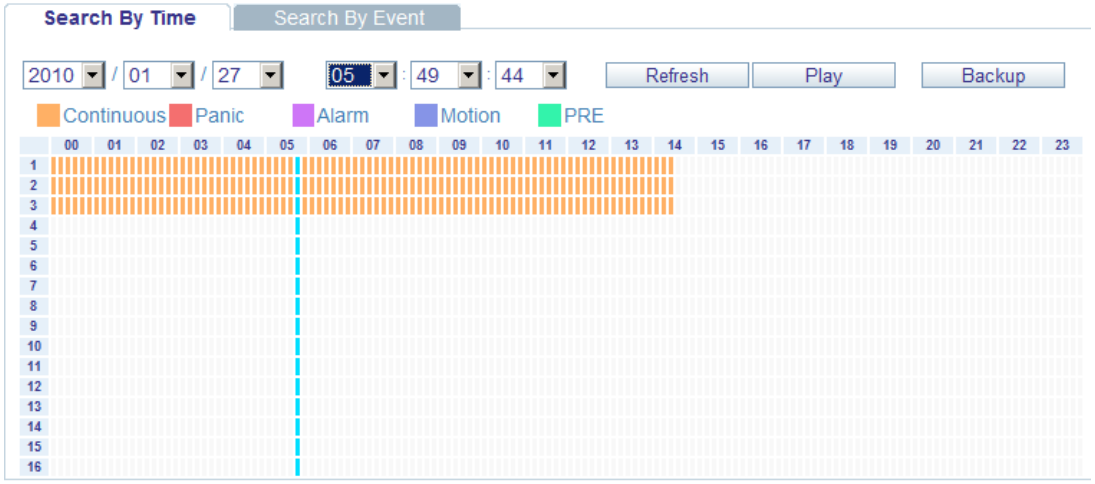
WEB CONNECTION SETUP

1. Pattern – move a camera to a sequence of several preset camera positions in order.
2. Preset – set a position of the camera to be recalled later.
3. Swing – move a camera between two or more preset points.

SEARCH BY TIME

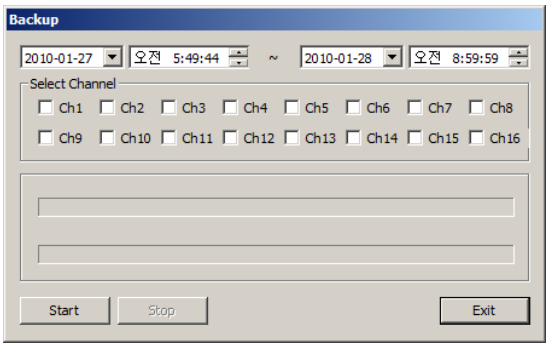


- Select a position on the timeline or set an exact time.
- Press the ‘Play’ button to begin playback from the selected position.



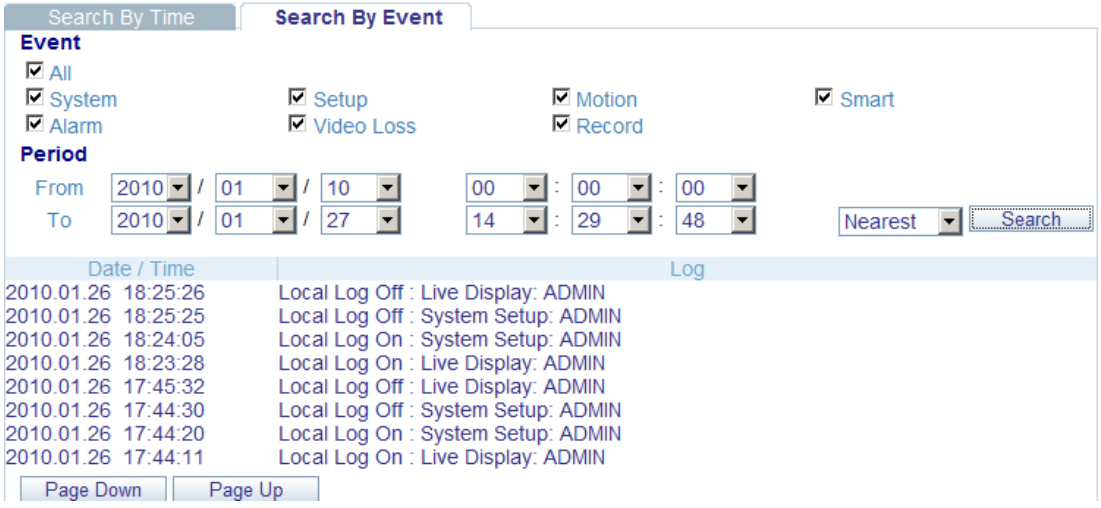
1. **Refresh** : Refresh all data indicators on the recording table.
2. **Play** : Initiate playback of recorded data from the current position on the timeline.
3. **Backup** : User can archive recorded data remotely from the DVR to the local PC.

WEB CONNECTION SETUP



SEARCH BY EVENT

1. Event : Select the types of events to search for within the recorded data.
2. Period : Set the date/time range to search for events within the recorded data.
3. Search : Begin query, and list all events found within selected range and type.

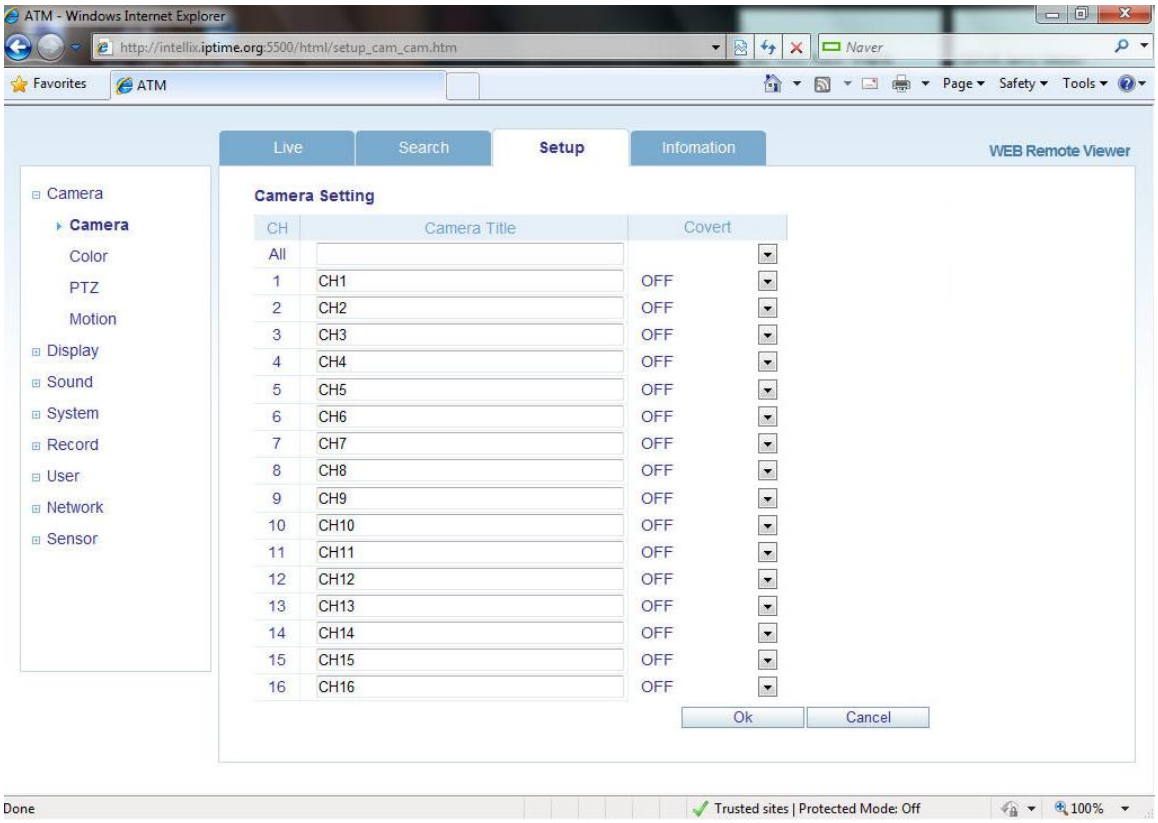

Search By Time
Search By Event
Event
All
System
Setup
Motion
Smart
Alarm
Video Loss
Record
Period
From 2010 / 01 / 10 00 : 00 : 00
To 2010 / 01 / 27 14 : 29 : 48
Nearest
Search
Date / Time
Log
2010.01.26 18:25:26 Local Log Off : Live Display: ADMIN
2010.01.26 18:25:25 Local Log Off : System Setup: ADMIN
2010.01.26 18:24:05 Local Log On : System Setup: ADMIN
2010.01.26 18:23:28 Local Log On : Live Display: ADMIN
2010.01.26 17:45:32 Local Log Off : Live Display: ADMIN
2010.01.26 17:44:30 Local Log Off : System Setup: ADMIN
2010.01.26 17:44:20 Local Log On : System Setup: ADMIN
2010.01.26 17:44:11 Local Log On : Live Display: ADMIN
Page Down
Page Up

4. Double-click an event from the list to initiate playback, with the specific channel shown in full screen mode.

WEB CONNECTION SETUP

REMOTE SETUP

1. **CAMERA** : User can configure all camera attributes, such as title, covert channel, PTZ, or motion.



- Motion Area Setup for individually configuring motion areas and sensitivity.

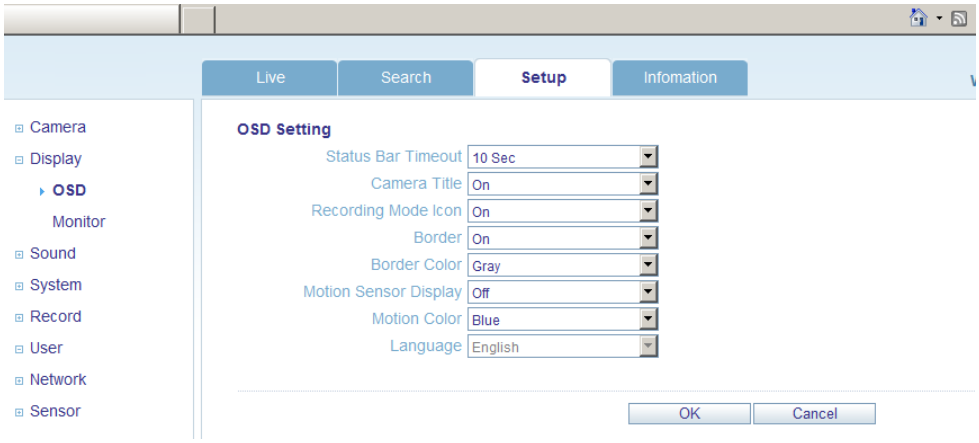
WEB CONNECTION SETUP

1. CAMERA (continued)

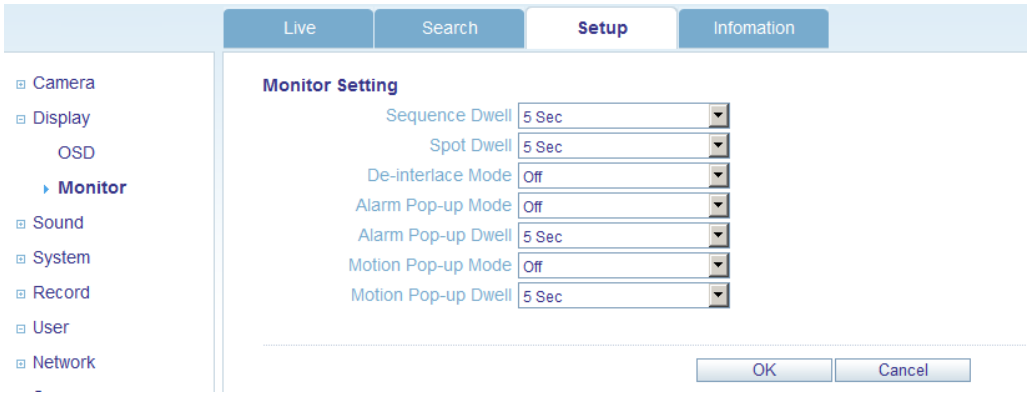
1) Select the '**Motion**' submenu.
2) Select a channel and the motion sensitivity level.
3) Click and drag the mouse across the image grid to select motion areas.
4) Click OK.

2. DISPLAY

1) OSD - Configure properties for the on-screen display (OSD) of the DVR.



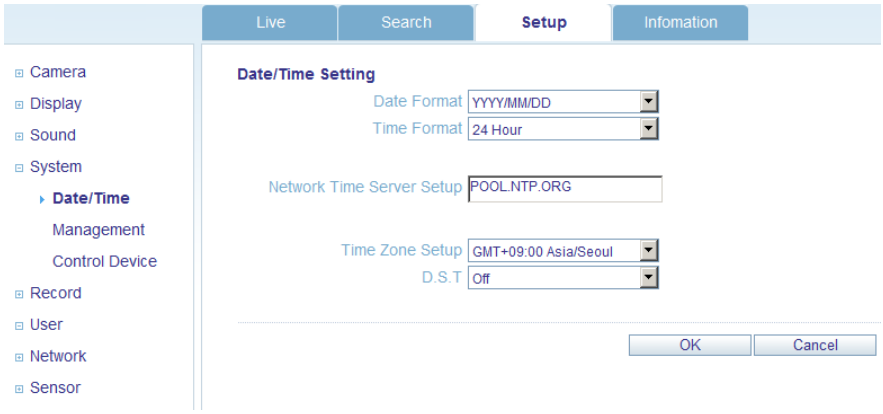
2) Monitor - Set dwell time for sequence, spot monitor output, and pop-up functions.



WEB CONNECTION SETUP

3. System

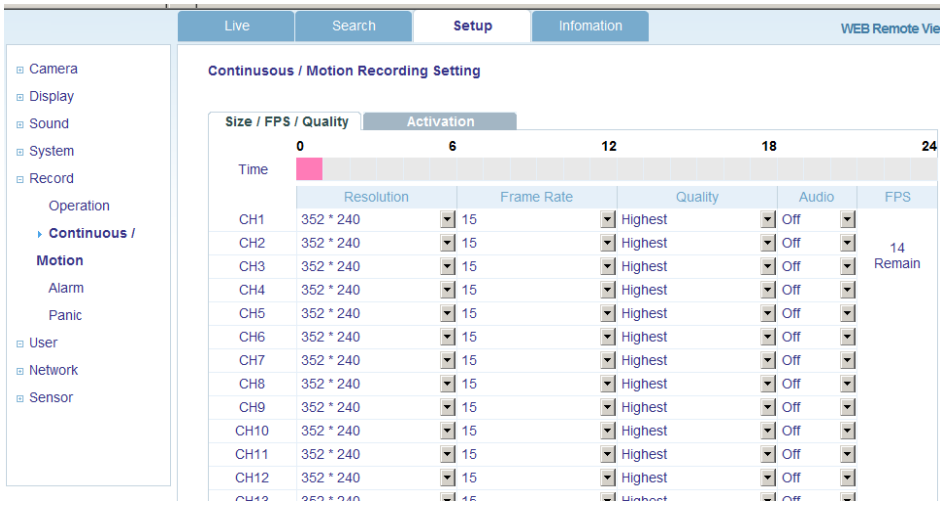
Configure Date and Time Formats, NTP Time Server, Time Zone and DST properties.



4. Recording

User can configure all of the recording parameters and schedules.

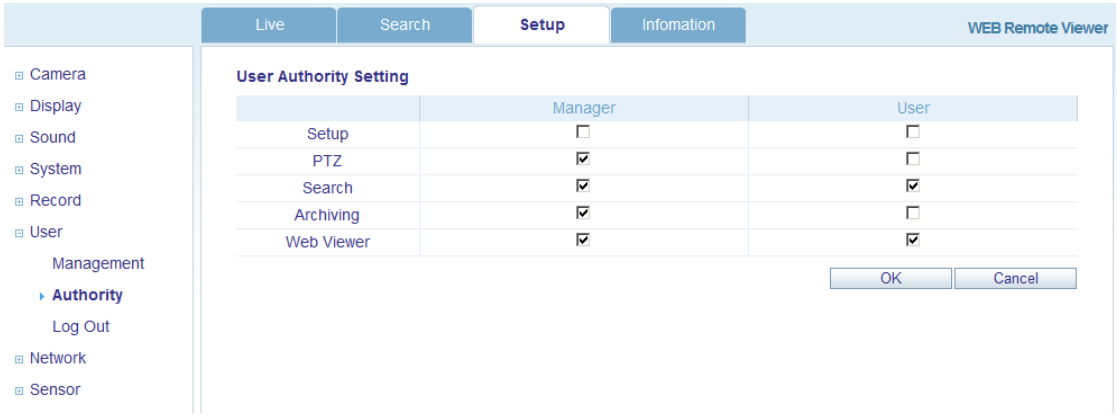
(*This is similar to the procedure for configuring these properties on the DVR system*.)



WEB CONNECTION SETUP

5. User

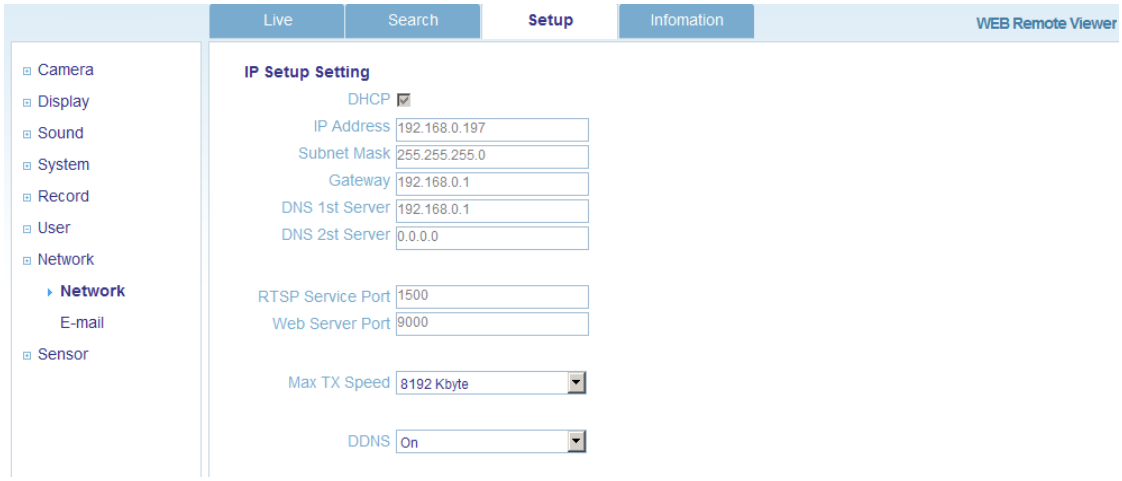
Add new users, configure existing users, authority level and log out time.



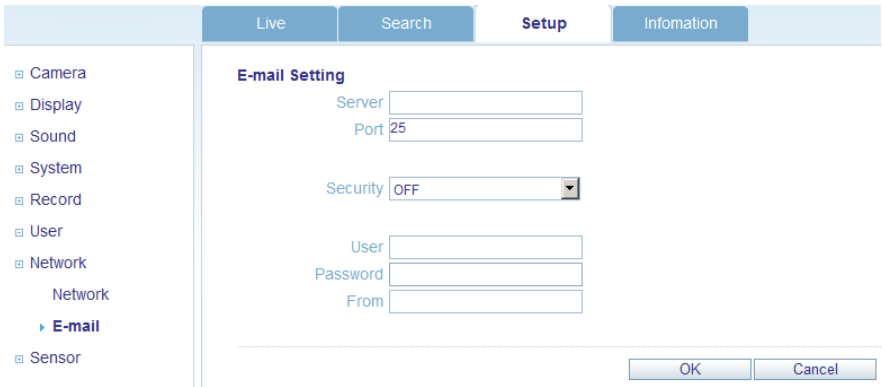
6. Network

User can check the DVR network information and adjust the network bandwidth throttle.

All other IP settings are not allowed to be changed remotely. These settings can only be changed locally.



For setting up e-mail notification, user can configure the SMTP server details remotely.

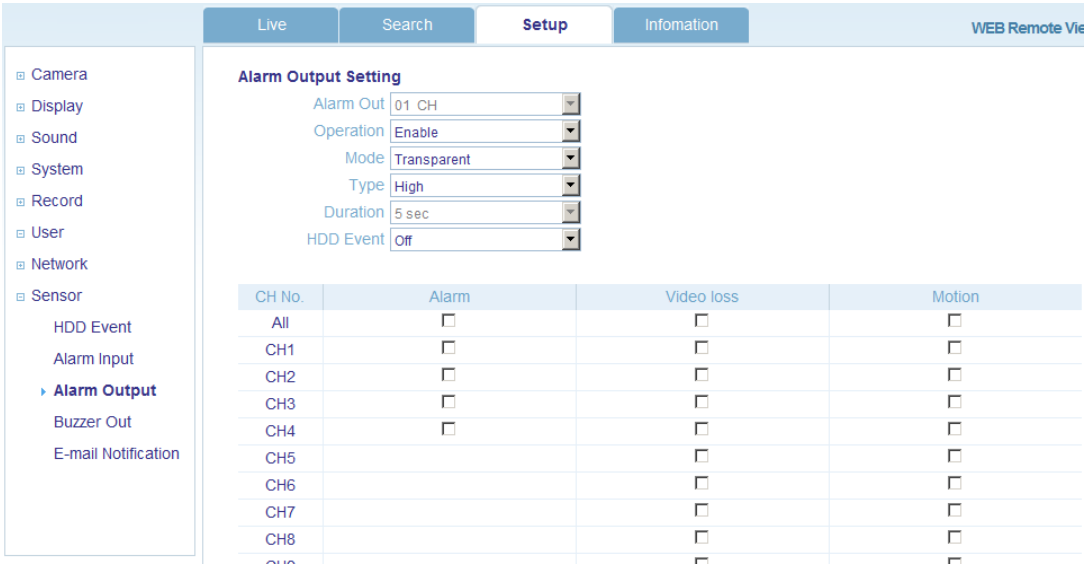


WEB CONNECTION SETUP

7. Sensor

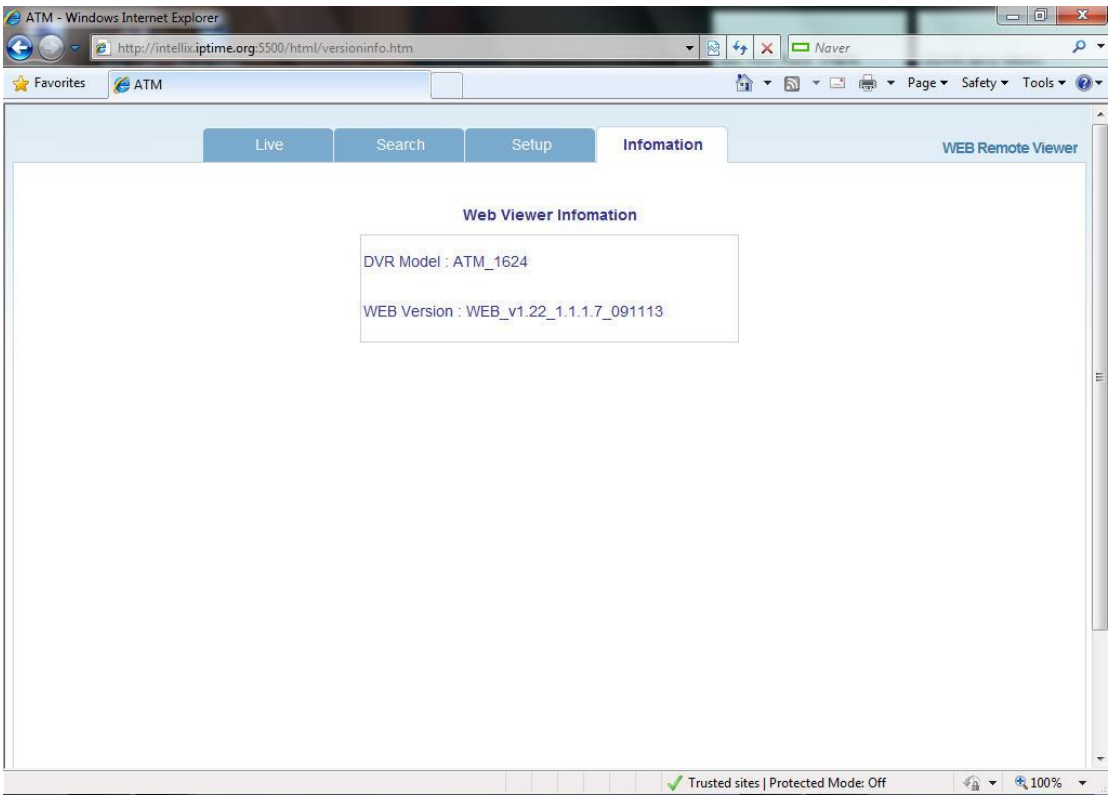
Configure all options for Alarm Input, Alarm Output, Buzzer Out, and E-Mail Notification.

The menu structure is very similar to the local DVR system setup for Event / Sensor.



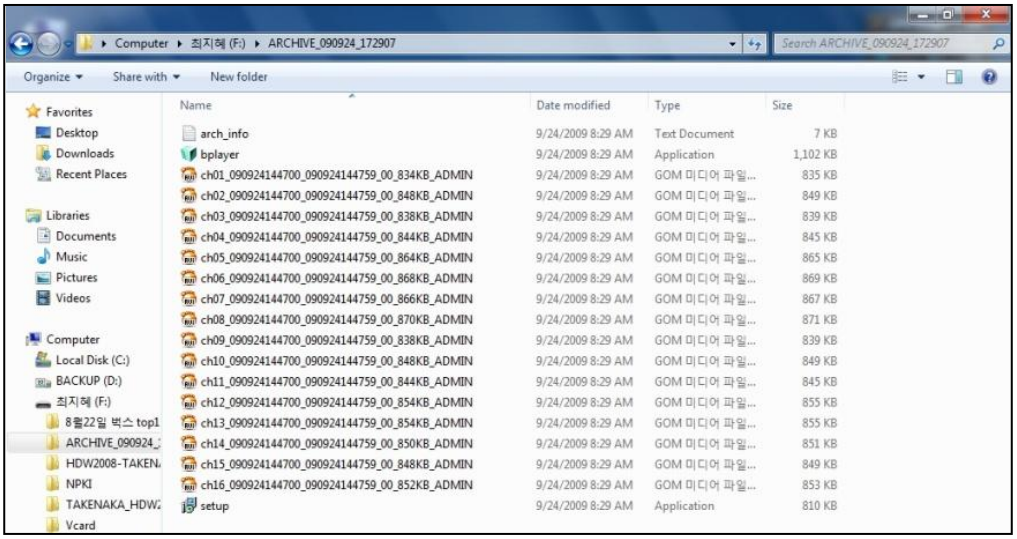
INFORMATION

- Displays the DVR Model and WEB Remote Software Version.

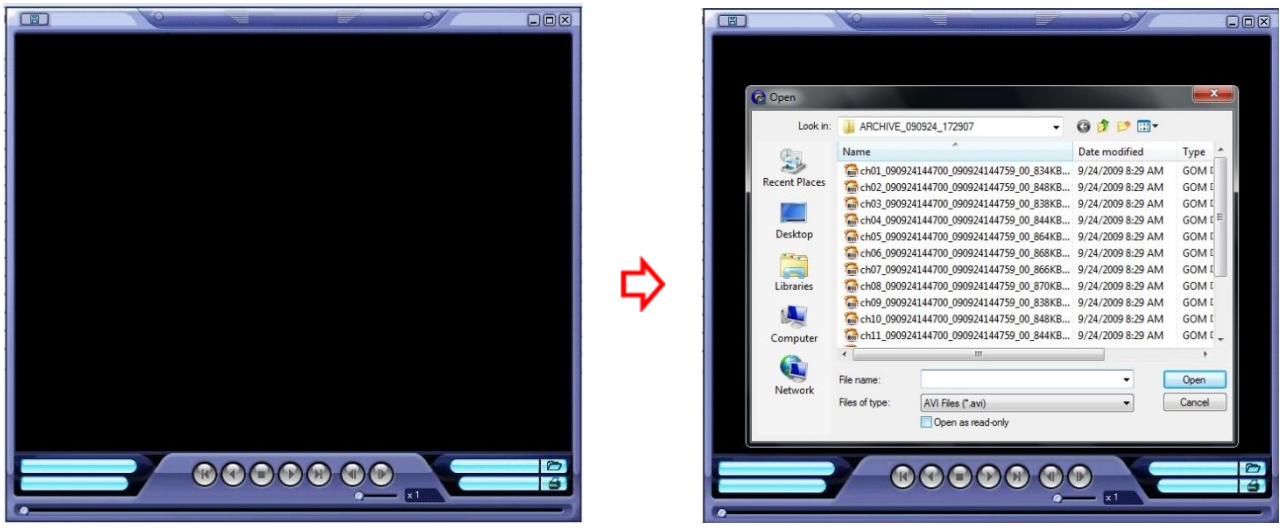


WATERMARK PROCESS

1. Open the archive data, and Run the file [bplayer.exe], which is included within the backup folder.



2. Click the [Open File] button and choose the backup file you wish to open and verify.



WATERMARK PROCESS

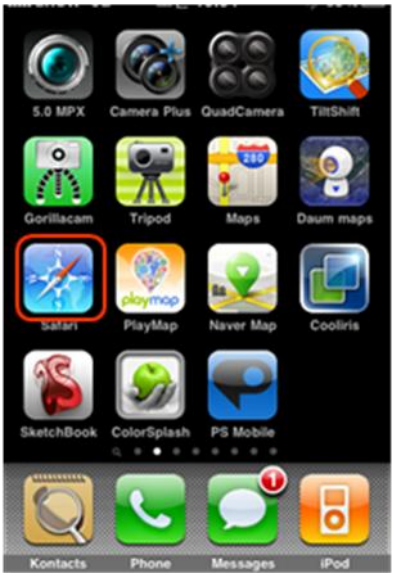
3. After selecting the file, you will be asked to confirm whether or not you would like to check the watermark.
4. Click the [Yes] button to verify the embedded watermark.

5. If the archived AVI file has been modified, a **[Verification Failed]** message will appear.

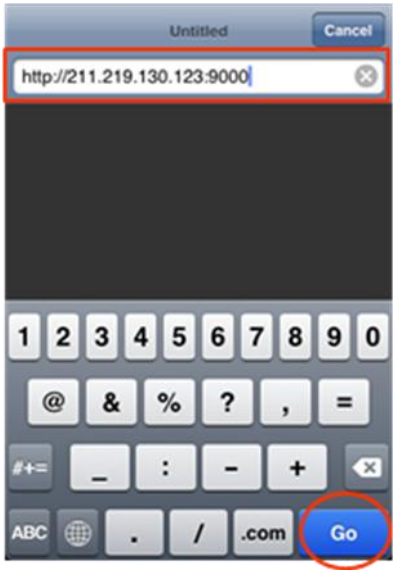
SMARTPHONE CONNECTION

- **iPhone**

1. Select the Safari browser.



2. Enter the IP address or URL to connect.
   Click the [GO] button.



3. Enter the User ID and Password.
   (Default: **ADMIN** / **1234**)

SMARTPHONE CONNECTION

- **BlackBerry**

1. Select the Web browser.

2. Enter the IP address or URL to connect, and press the Enter button.

3. Enter the User ID and Password.
   (Default: **ADMIN** / **1234**)

Français/French

Élimination de votre ancien appareil

1. Ce symbole, représentant une poubelle sur roulettes barrée d'une croix, signifie que le produit est couvert par la directive européenne 2002/96/EC.
2. Tous les produits électriques et électroniques doivent être éliminés séparément de la chaîne de collecte municipale des ordures, par l' intermédiaire des installations de collecte prescrites et désignées par le gouvernement ou les autorités locales.
3. Une élimination conforme aux instructions aidera à réduire les conséquences négatives et risques éventuels pour l'environnement et la santé humaine.
4. Pour plus d'informations concernant l'élimination de votre ancien appareil, veuillez contacter votre mairie, le service des ordures ménagères ou encore le magasin où vous avez acheté ce produit.

English

Disposal of your old appliance

1. When this crossed-out wheeled bin symbol is attached to a product it means the product is covered by the European Directive 2002/96/EC.
2. All electrical and electronic products should be disposed of separately from the municipal waste stream via designated collection facilities appointed by the government or the local authorities.
3. The correct disposal of your old appliance will help prevent potential negative consequences for the environment and human health.
4. For more detailed information about disposal of your old appliance, please contact your city office, waste disposal service or the shop where you purchased the product.

Deutsch/German

Entsorgung von Altgeräten

1. Wenn dieses Symbol eines durchgestrichenen Abfalleimers auf einem Produkt angebracht ist, unterliegt dieses Produkt der europäischen Richtlinie 2002/96/EC.
2. Alle Elektro- und Elektronik-Altgeräte müssen getrennt vom Hausmüll über die dafür staatlich vorgesehenen Stellen entsorgt werden.
3. Mit der ordnungsgemäßen Entsorgung des alten Geräts vermeiden Sie Umweltschäden und eine Gefährdung der persönlichen Gesundheit.
4. Weitere Informationen zur Entsorgung des alten Geräts erhalten Sie bei der Stadtverwaltung, beim Entsorgungsamt oder in dem Geschäft, wo Sie das Produkt erworben haben.

Italiano/Italian

RAEE: SMALTIMENTO DELLE VOSTRE VECCHIE APPARECCHIATURE

1. Quando il simbolo del "Cassonetto Barrato" è apposto su un prodotto, significa che lo stesso può ricadere nei termini previsti dalla Direttiva Europea nr. 2002/96/EC in funzione dell'attuazione definita dalla Legislazione dei singoli stati membri dell'Unione Europea.
2. Tutti i prodotti elettrici ed elettronici dovrebbero essere smaltiti separatamente dai rifiuti municipali, tramite appositi contenitori, approvati dall'Amministrazione Comunale o dalle Autorità Locali.
3. Il corretto smaltimento delle vostre vecchie apparecchiature, contribuirà a prevenire possibili conseguenze di impatto negativo sull' ambiente e per la salute dell'uomo.
4. Per maggiori informazioni circa lo smaltimento delle vostre vecchie apparecchiature, siete pregati di contattare l'ufficio municipale della vostra città, il servizio di smaltimento rifiuti o il punto vendita nel quale avete acquistato il prodotto.

Polski/Polish

Utylizacja starych urządzeń

1. Kiedy do produktu dołączony jest niniejszy przekreślony symbol kołowego pojemnika na śmieci, oznacza to, że produkt jest objęty europejską dyrektywą 2002/96/EC.
2. Wszystkie elektryczne i elektroniczne produkty powinny być utylizowane niezależnie od odpadów miejskich, z wykorzystaniem przeznaczonych do tego miejsc składowania wskazanych przez rząd lub miejscowe władze.
3. Właściwy sposób utylizacji starego urządzenia pomoże zapobiec potencjalnie negatywnemu wpływowi na zdrowie i środowisko.
4. Aby uzyskać więcej informacji o sposobach utylizacji starych urządzeń, należy skontaktować się z władzami lokalnymi, przedsiębiorstwem zajmującym się utylizacją odpadów lub sklepem, w którym produkt został kupiony.

Português/Portuguese

Eliminação do seu antigo aparelho

1. Quando este símbolo de latão cruzado estiver afixado a um produto, significa que o produto é abrangido pela Directiva Europeia 2002/96/EC.
2. Todos os produtos eléctricos e electrónicos devem ser eliminados separadamente da coleta de lixo municipal através de pontos de recolha designados, facilitados pelo governo ou autoridades locais.
3. A eliminação correcta do seu aparelho antigo ajuda a evitar potenciais consequências negativas para o ambiente e para a saúde humana.
4. Para obter informaçõs mais detalhadas acerca da eliminação do seu aparelho antigo, contacte as autoridades locais, um serviço de eliminação de resíduos ou a loja onde comprou o produto.

Español/Spanish

Cómo deshacerse de aparatos eléctricos y electrónicos viejos

1. Si en un producto aparece el símbolo de un contenedor de basura tachado, significa que éste se acoge a la Directiva 2002/96/EC.
2. Todos los aparatos eléctricos o electrónicos se deben desechar de forma distinta del servicio municipal de recogida de basura, a través de puntos de recogida designados por el gobierno o las autoridades locales.
3. La correcta recogida y tratamiento de los dispositivos inservibles contribuye a evitar riesgos potenciales para el medio ambiente y la salud pública.
4. Para obtener más información sobre cómo deshacerse de sus aparatos eléctricos y electrónicos viejos, póngase en contacto con su ayuntamiento, el servicio de recogida de basuras o el establecimiento donde adquirió el producto.

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